Red Lake Forest
Independent Forest Audit
2005-2010

Final Report

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1.0 EXECUTIVE SUMMARY

This report documents the results of an Independent Forest Audit (IFA) for the Red Lake Forest conducted by KBM Forestry Consultants Inc. covering the five-year period April 1, 2005 to March 31, 2010. Two forest management plans are included in the scope of this audit. Specifically, implementation of the last three years of the 2003-2008 FMP, and planning and approval for the 2008-2018 FMP as well as its implementation for the first two years period of its term.

The Red Lake Forest is managed by the Red Lake Forest Management Company Limited (RLFMCL) under Sustainable Forest Licence (SFL) #542548. As holder of the SFL, RLFMCL is responsible for all aspects of forest management planning, harvesting, reforestation, and monitoring. The licence requires that RLFMCL carry out renewal and maintenance activities necessary to provide for the long-term sustainability of the Crown forest in the Red Lake Forest.

RLFMCL's main office is located in Red Lake. At the time of this audit, general management of RLFMCL had been contracted to Domtar in Dryden. The principal auditees are both RLFMCL and the Red Lake District Office of the Ontario Ministry of Natural Resources (MNR).

The Red Lake Forest lies entirely within the Boreal Forest Region. By today's standards, the Red Lake Forest is a small management unit at slightly more than 300,000 ha. Coniferous types dominate the forest with black spruce as the predominant species.

The audit included a review of all documents associated with forest management of the Red Lake Forest during the audit term. The audit team reviewed a range of documentation and records, conducted interviews with those involved with or impacted by forest management on the Forest during the term of the audit, and examined a number of randomly selected sites in the field for the assessment of activities associated with forestry. Selected sites were examined over a two-day period using a helicopter or vehicles for access. Input from the public was solicited through various means.

IFAs are directed by a set of eight guiding principles as described in the Independent Forest Audit Process and Protocol. Recommendations arise from audit team observations of material non-conformances, or may be developed to address situations in which the audit team identifies a significant lack of effectiveness in forest management activities. Based on the audit, nine recommendations were made.

The audit findings provide several corrective actions which need to be addressed by RLFMCL. Most importantly, the audit team found that the level of harvest for the new plan had been increased without full consideration for balancing of the complete range of plan objectives. It was therefore recommended that RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.

Other important findings relate to water crossings and ensuring that forestry activities, including road construction, do not impede water flow. As well, rehabilitation of operational roads in caribou blocks needs to follow direction provided in the forest management plan. Other findings are concerned with improvements to the forest management plans, annual reports and annual work schedules.

The audit team concludes that, *with the critical exception* noted below, management of the Red Lake Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Red Lake Forest Management Company Limited. Forest sustainability is being achieved, as assessed through the Independent Forest Audit Process and Protocol.

The critical exception is as follows: The decision to increase harvest for the 2008-2018 term on the basis of company solvency and planning for a new mill facility in Red Lake is questionable. The audit team believes more consideration should be given to the balance of plan objectives in the 2008-2018 FMP and the following recommendation is made. Therefore, the audit team recommends the Minister extend the term of the Sustainable Forest Licence 542548 for a further five years, only upon confirmation that the following condition has been satisfied: RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.

Peter Higgelke, R.P.F.
Lead Auditor on behalf of the audit team

2.0 TABLE OF RECOMMENDATIONS

Recommendation on Licence Extension
The audit team concludes that, *with the critical exception* noted below, management of the Red Lake Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Red Lake Forest Management Company Limited. Forest sustainability is being achieved, as assessed through the Independent Forest Audit Process and Protocol. The critical exception is as follows: The decision to increase harvest for the 2008-2018 term on the basis of company solvency and planning for a new mill facility in Red Lake is questionable. The audit team believes more consideration should be given to the balance of plan objectives in the 2008-2018 FMP and the following recommendation is made. Therefore, the audit team recommends the Minister extend the term of the Sustainable Forest Licence 542548 for a further five years, only upon confirmation that the following condition has been satisfied: RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.
Recommendations Directed to SFL Holder / MNR District
Recommendation 1: The audit team recommends that MNR consider formally including Métis people in its invitation to participate in the forest management planning process.
Recommendation 2: The audit team recommends that RLFMC amend the 2008-2018 FMP to include required detail in the management unit description.
Recommendation 3: The audit team recommends that RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.
Recommendation 4: The audit team recommends that RLFMCL amend the 2008-2018 FMP to provide clarity regarding waste fibre management to reclaim productive land. This new direction must then be consistently implemented.
Recommendation 5: The audit team recommends that RLFMCL ensure that operational roads in caribou blocks be purposefully rehabilitated in accordance with the FMP.
Recommendation 6: The audit team recommends that RLFMCL ensure that all water crossing installations are completed according to all required aspects of the Environmental Guidelines for Access Roads and Water Crossings.
Recommendation 7: The audit team recommends that RLFMCL ensure that water flow is not impeded by road construction and forest harvesting activities.
Recommendation 8: The audit team recommends that RLFMCL ensure that all aggregate pits are properly rehabilitated during periods of inactivity.
Recommendation 9: The audit team recommends that RLFMCL and MNR ensure that Annual Reports are complete and accurate.
Recommendations Directed to Corporate MNR
None.

3.0 INTRODUCTION

3.1 Audit Process

Independent Forest Audits (IFAs) are a requirement of the *Crown Forest Sustainability Act (S.O. 1994, c. 25)* (CFSA); every forest management unit in Ontario must be audited by an independent party at least once every five years.

KBM Forestry Consultants Inc. conducted an independent forest audit on the Red Lake Forest (or RLF) for the five-year period April 1, 2005 to March 31, 2010. The audit assessed the implementation of the 2003-2008 Forest Management Plan (FMP) from the period April 1, 2005 to March 31, 2008 as well as the planning of the 2008-2018 FMP and the first two years of its implementation, specifically April 1, 2008 to March 31, 2010. The on-site portion of the audit occurred from August 29 to September 3 inclusive with document examination and interviews taking place prior and subsequent to this period.

The Independent Forest Audit Process and Protocol (IFAPP) was developed by MNR to provide a comprehensive and consistent method of evaluating forest management activities on Crown land. The IFAPP states that the purpose of an IFA is to:

- Assess compliance with the Forest Management Planning Manual (FMPM) and the CFSA;
- Assess compliance of forest management activities with the FMPM, forest management plan(s) and the CFSA;
- Compare planned versus actual forest management activities;
- Assess the effectiveness of forest management activities in meeting forest management objectives;
- Assess the effectiveness of any action plans resulting from previous audits; and
- Assess a licensee's compliance with the terms and conditions of the Sustainable Forest Licence (SFL).

The IFAPP provides a comprehensive and consistent method of evaluating forest management activities on Crown land. It serves as a framework and provides a structured approach to evaluating whether or not forest management activities meet the requirements governing forestry practices on Crown land in Ontario. More detailed information on the audit process is provided in Appendix 4. Audit team members and their qualifications are presented in Appendix 6.

IFAs are guided by a set of eight guiding principles as described in the Independent Forest Audit Process and Protocol. Recommendations arise from audit team observations of material non-conformances, or may be developed to address situations in which the audit team identifies a significant lack of effectiveness in forest management activities. All recommendations made in this report are correspondingly described in full in Appendix 1.

The Red Lake Forest (Management Unit #840) is managed under SFL #542548 held by the Red Lake Forest Management Company Ltd. (RLFMCL). As the managers of the Red Lake Forest, the principal auditees are both RLFMCL and the Red Lake District Office of the Ontario Ministry of Natural Resources (MNR). Other auditees include contractors and other branches of MNR to the extent that forest management activities carried out by them are the subject of audit examination.

3.2 Management Unit Description

The Red Lake Forest surrounds the towns of Red Lake, Balmertown and Cochenour, and is located entirely within the Red Lake District, in the Northwest Region of the MNR. The Forest is administered as the Red Lake North Area from the Red Lake District MNR Office. MNR is responsible for the approval of land and resource-use decisions pertaining to the Forest.

RLFMCL has held SFL #542548 since April 1999, and administers the Forest from its office in Red Lake, Ontario. RLFMCL is made up of two groups of shareholders: Class A and Class B. Significant changes to the shareholders have occurred in the past few years. Presently, Class A shareholders are Domtar Pulp and Paper Inc. and the Red Lake Independent Loggers Ltd. Six independent loggers constitute the Class B shareholders group and have 100% of the harvesting rights on the Red Lake Forest. The Forest is managed by Domtar under contract to RLFMCL. The location of the Red Lake Forest is illustrated in figure 1.

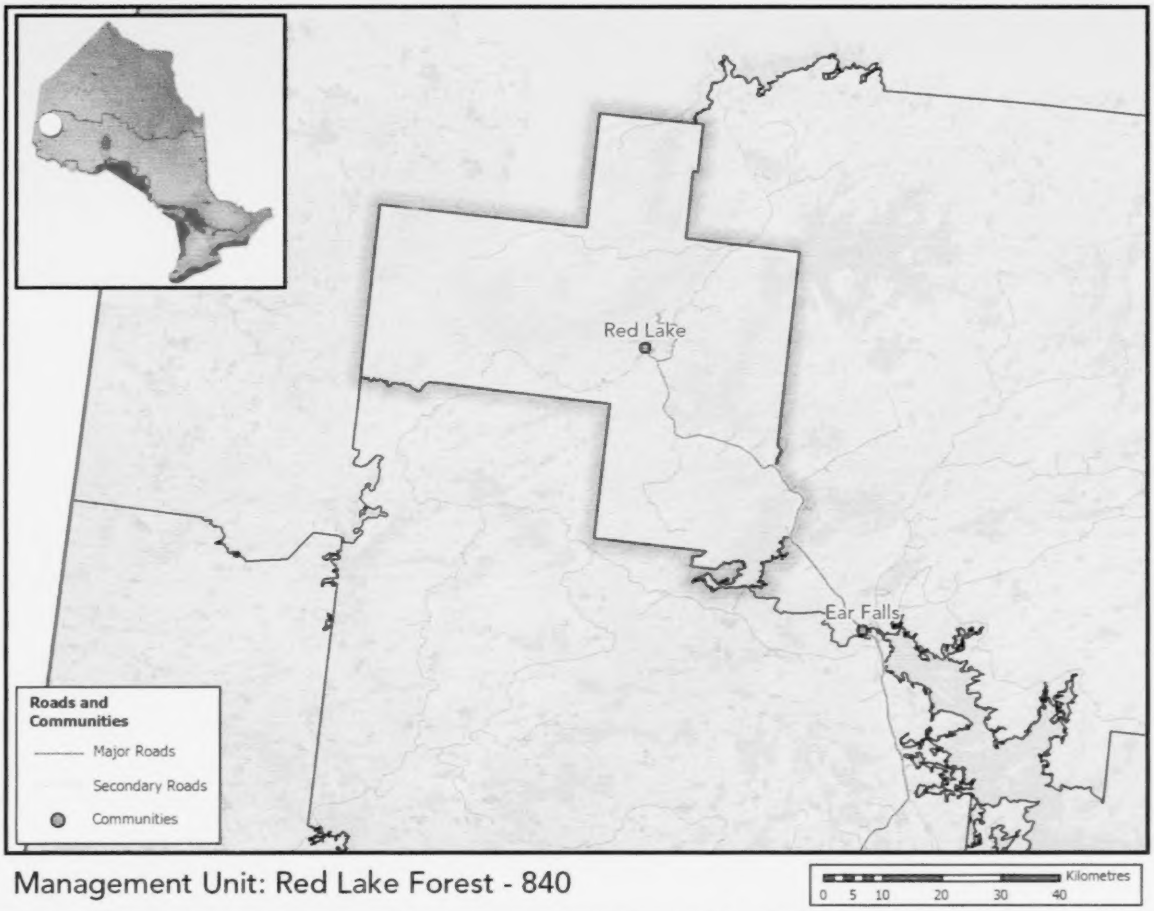


Figure 1. Map of the Red Lake Forest in northern Ontario (Provided by MNR).

The Red Lake Forest is bordered by the Trout Lake Forest to the east, the Whiskey Jack Forest to the south, Woodland Caribou Provincial Park to the west and Ontario's Far North to the north. Highway access into the forest is provided by Provincial Highway 105 north from Vermilion Bay, Highway 125 east from Red Lake to Cochenour, and Highway 618 west from Red Lake to Madsen. Primary access roads constructed prior to the SFL include Dixie Lake Road, Suffel Lake Road, Pineridge Road, and the North Road.

Generally, the Red Lake Forest is represented by two main glacial feature types: deep water deposits (clays, silts and fine sands) in the easternmost portion of the unit, and glacial till and drift (gravelly to bouldery; sand to coarse loam - thin coverage) deposits over bedrock, in the central and western portions. Localized deposits of silts and clays can be found in these latter areas.

Ecosite 20 (as defined by the Northwest Forest Ecosite Classification) is the most common ecosite on the forest, covering approximately 36% of the productive forest. Ecosite 20 is characterized by dry to fresh, well drained sandy or coarse loamy soils. The overstory is often dominated by black spruce and jack pine with limited hardwood cover.

The second most common ecosite is Ecosite 12 covering 13% of the forest. Ecosite 12 is classified as a result of the very shallow soils associated with these sites (less than 20 cm with bedrock outcrops). The forest canopy is usually comprised of black spruce and jack pine trees with minimal balsam fir and hardwood components. The extreme site conditions often limit the crown cover of the forest resulting in open or patchy conditions varying to closed canopy where soil conditions support more prolific growth. There are considerable operational considerations associated with forest management activities on Ecosite 12 areas. Figure 2 provides the forest unit distribution for the Red Lake Forest.

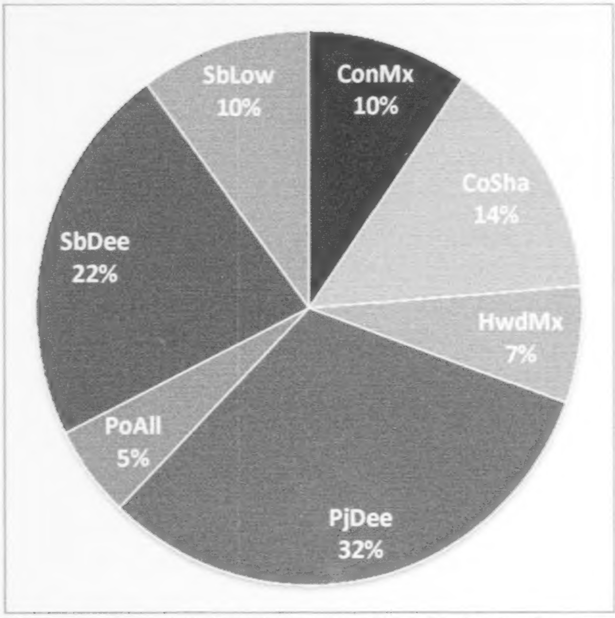


Figure 2. Forest Unit distribution of the Red Lake Forest.

The Red Lake Forest has a profound reputation for the occurrence of forest fires. Where large forest fires once dominated, fire suppression efforts have largely reduced the size of these events in the past 40 years. Still, two large forest fires during this period destroyed 27,846 ha of forest in 1980 and 24,316 ha in 1986. In 1991, 4,600 ha of forest were blown down by severe winds. Severe spruce budworm infestations killed most of the balsam fir on the Forest. The stands impacted by the budworm are renewing to fully stocked mixed wood stands.

The history of large catastrophic disturbances has resulted in typical boreal forest species distribution and age structure. Even-aged jack pine and black spruce stands dominate the shallow and coarse textured soil types. Deep, fine textured sites are normally host to conifer dominated mixed-wood stands. Where harvesting has occurred without follow up tending, the hardwood component generally has increased. The Red Lake Forest has among the lowest fire-cycles in the province and the large disturbances of the last 25 years have created a high proportion of young forests. Very old timber exists mainly on wet sites where fire has bypassed these stands.

The period from 1930-1970, saw logging activities for saw material along the Chukuni waterway system, particularly Red Lake and Little Vermilion Lake. As a result, many of the balsam fir and mixed wood stands on the RLF occur in this area. The age-class distribution on the Red Lake Forest is presented in Figure 3.

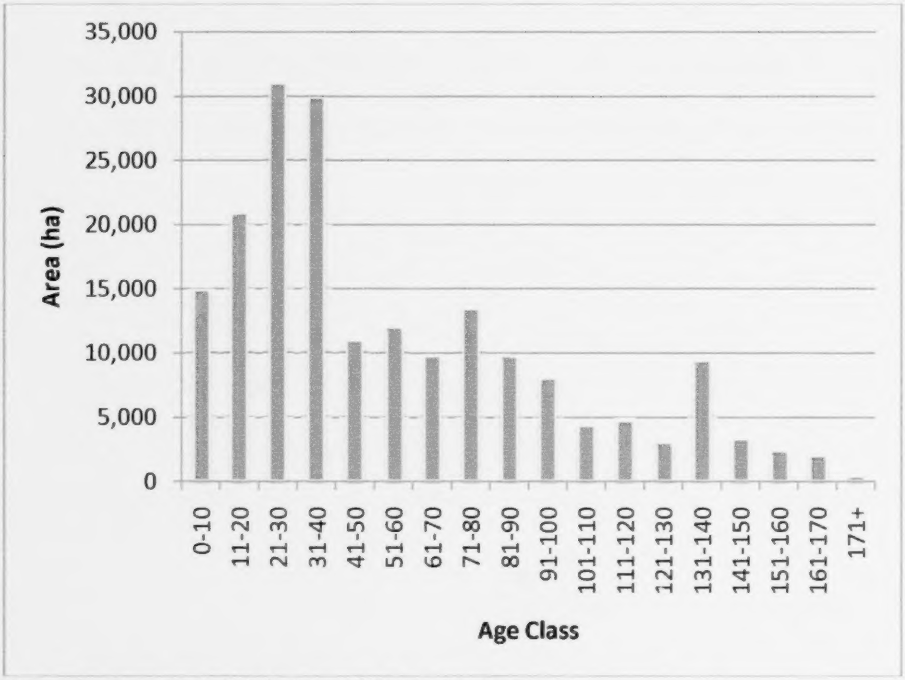


Figure 3. Age-class distribution of the Red Lake Forest.

Access is well developed on the Red Lake Forest with the primary road network completed in the 1990s. While forest roads are favoured by many forest users, namely those interested in trapping, angling, hunting and mining, conflicts with remote tourism has resulted. Measures to mitigate negative impacts of forest roads to remote tourism have been invoked.

Past forest management policy tended towards the creation of small harvest blocks, thereby maximizing edge and favouring moose habitat over that of woodland caribou. More recent policy direction has led to the use of natural disturbance pattern emulation giving forest managers an opportunity to manage for caribou habitat on the northern part of the RLF with large contiguous areas of habitat retained intact over long time periods.

The Municipality of Red Lake is located in the RLF. Only 5.2% of the labour force is employed by the forestry sector; mining is the primary source of employment. Although no Aboriginal communities are located in the forest, Pikangikum First Nation, Lac Seul First Nation, and the Aboriginal people living in the Red Lake area are influenced by the Red Lake Forest.

3.3 Current Issues

Prior to the on-site portion of the audit, discussions were held with representatives of RLFMCL and the Red Lake MNR to identify current issues for forest management on the Red Lake Forest. The following issues were identified and included in the audit plan as High Priority Aspects:

- Areas withdrawn through the Ontario Living Legacy (OLL) process resulted in decreases to the Red Lake Forest wood supply that has not yet been replaced.
- Significantly reduced harvest levels on Red Lake Forest since 2006 have had an economic impact on the Red Lake Forest Management Company Limited.

3.4 Summary of Consultation and Input to Audit

Several methods of public consultation for the audit were used. KBM mailed letters to numerous parties advising of the audit and inviting their input. Mail-outs included a one-page survey to solicit public input to the audit process. The survey was also available to the general public on the KBM website (www.kbm.on.ca).

Advertisements were published in two area newspapers (Northern Sun News and Wawatay News) prior to the pre-audit meeting advising the public of the upcoming audit, identifying the purpose of the audit and inviting the public to submit comments to the LCC Chair or directly to KBM.

KBM sent a letter to each of the Aboriginal communities on the MNR contact list, inviting their participation in the IFA for the Red Lake Forest. The letter requested community input and encouraged them to contact KBM if they wished to participate in the audit or if they require more information before making a decision. KBM also offered to arrange in-person meetings with each of these Aboriginal Communities. Follow up phone calls were made to these communities seeking their participation on the audit.

KBM developed a questionnaire that was circulated to planning team members to assess their perceptions regarding the effectiveness of the planning process. The results of the survey provided additional focus to IFAPP prescribed interview procedures.

A more detailed description of consultation and input to the audit is included in Appendix 4.

4.0 AUDIT FINDINGS

4.1 Commitment

RLFMCL has been impacted severely by the economic downturn but generally met legislated requirements. Forest harvesting activities on the RLF were significantly underachieved and the renewal program, although correspondingly underachieved when compared to FMP targets, has been maintained. The compliance record for the audit term was good. The MNR has maintained a strong presence in the management of the Forest and in maintaining a good working relationship with RLFMCL. Field observations and interviews provide evidence that RLFMCL and MNR have met this principle.

4.2 Public Consultation and Aboriginal Involvement

Development of the 2008-2018 FMP met all of the requirements for public consultation. The public consultation was thorough and adhered closely to the FMPM schedule. The records are properly maintained with evidence of advertisements and correspondence.

The LCC endorsed the 2008-2018 FMP indicating active involvement during in the planning process. Members felt that their input provided value to FMP completion.

All issues were resolved within the normal course of plan development. Despite the significant levels of competing interests between recreation, remote tourism, mining, trapping and forest products stakeholders, there was no need to invoke the formal issue resolution process allowed for under the FMPM.

Effective public consultation resulted in better than average performance, and is seen as a positive reflection of the integrity and professionalism of the RLFMCL and MNR staff. It is likely that the relatively small size of the FMU played a role for planners to find the appropriate amount of time to properly engage local citizens. As the MNR considers amalgamating FMUs into larger units to gain economies of scale and allow improved implementation of landscape guidelines, the advantages of smaller units in addressing the needs of local citizens should also be taken into account.

No Aboriginal communities are located within the Red Lake Forest. Considerable effort was directed at ensuring Aboriginal involvement in the forest management planning process. The communities consulted during the forest management planning process were Pikangikum First Nation, Lac Seul First Nation and the Off-Reserve Red Lake First Nation Community. Pikangikum First Nation and Lac Seul First Nation were offered representation on the planning team but did not identify a planning team representative. Subsequently, a representative of Pikangikum was invited to attend all planning team activities as a guest as a capacity building opportunity for the Whitefeather Forest Management Company, who were preparing a 2012 FMP. Throughout the development of the Red Lake FMP, this member of the Whitefeather Forest Management Company worked with the planning team and worked closely with the First Nation liaison.

MNR assigned an Aboriginal Liaison to contact communities on a regular basis from start to plan approval. An Aboriginal Consultation Approach was offered to each community and the Aboriginal consultation process was followed. Lac Seul requested and received community presentations on the Forest Management Plan.

Three Aboriginal communities are included in the "Aboriginal Background Information Report" for the FMP:

- Off-Reserve Red Lake Aboriginal Community
- Pikangikum First Nation
- Lac Seul First Nation

The Métis Nation of Ontario brought forth a position that it had not received an invitation to participate in the consultation process regarding forest management. In that position, the Métis Nation of Ontario asserted that its members are rights-bearing Aboriginal people, with the right to be meaningfully consulted.

MNR Red Lake confirmed that the Métis Nation of Ontario had neither been on the mailing list for the 2008-2018 FMP nor had it been invited to participate in the planning process for the 2008-2018 FMP. This mailing list has now been changed to include the Métis Nation of Ontario.

The audit team contends the inclusion of Métis people in the invitation to participate in the forest management planning process should have been considered and assurance that it will be considered in future forest management planning is needed.

Recommendation 1: The audit team recommends that MNR consider formally including Métis people in its invitation to participate in the forest management planning process.

4.3 Forest Management Planning

Forest Management Plan

The planning team established to develop the 2008-2018 FMP consisted of MNR and SFL representatives and one LCC member; there was no aboriginal representation although direct input was achieved through a member of Pikangikum First Nation as an invited guest. A comprehensive Terms of Reference was developed that defined planning team member roles, the plan production schedule and other required components. The plan was produced on schedule with no issues raised to the Steering Committee.

The FMP was well written and included the required components. It provides discussion of Rare Species (Section 2.2.4.1) using the Natural Heritage Information Centre (NHIC) database to identify rare species that are known to occur on the Red Lake Forest. When a Species at Risk or a rare species (on the S1 to S3 species list) is encountered during forest operations, the occurrence will be protected using a prescription developed from the appropriate MNR guide or a prescription developed by the planning team where the species is not covered by an MNR guide.

The Plan also includes a Species at Risk (SAR) discussion (Section 2.2.4.3) for five species listed on the Species at Risk in Ontario (SARO) that may be found on the Red Lake Forest. The discussion includes habitat requirements and a description of preferred habitat. Forecasts of habitat changes for woodland caribou and great grey owl are given together with a description of protection measures. Bald eagles nesting sites are provided protection through AOC prescription planning. Wolverine and eastern cougar are discussed with indications that there are no known values associated with these species on the Red Lake Forest and that appropriate AOC protection will be provided should values be discovered.

It was noted that there were sections of text that did include good discussions of implications on operations but this was not the norm. A detailed, thorough management unit description is needed to set the context for subsequent sections of the plan and for use by future forest planners. Factors that could or will affect planned operations should be fully discussed as per FMPM requirements.

Recommendation 2: The audit team recommends that RLFMC amend the 2008-2018 FMP to include required detail in the management unit description.

The development (e.g. achievement of checkpoints), assumptions, and documentation regarding the Strategic Forest Management Model were reviewed and found to be accurate and complete.

The Long Term Management Direction (LTMD) was endorsed by the planning team and LCC and approved by the Regional Director. It included objectives for each of the required CFSA categories and incorporated the results of LCC desired forest and benefits meetings and other public input. Most of the objectives and related targets/desired levels developed were reasonable. However, the audit team felt that there was too much focus on meeting wood supply targets over other select plan objectives in the 2008-2018 FMP.

Balancing of plan objectives is also discussed. Due mainly to the age class imbalance but strengthened by the selected term 1 volume targets, marten spatial habitat and other habitat for species that prefer older conifer is predicted to decline over the next several decades. Rationalization for marten habitat shortages and decreases in other wildlife habitat in the FMP was normally limited to the age class imbalance but planned harvest had some effect.

The following factors suggest the balance of objectives selected was not optimum:

- Historic harvest levels do not support an increase in harvest.
- Even if the proposed mill facility in Red Lake were to open, the nearby Trout and Whiskey Jack Forests are under-allocated and available to supply wood volume. In addition, the Whitefeather Forest to the north is currently in plan development and could be available to provide fibre to area mills.
- Previous plans for the Red Lake Forest predicted decreased wood volumes during the current period.
- When compared to the previous plan there was a smaller land base to draw from. Proposed extensions to Woodland Caribou Park of about 20,000 ha were still classified as productive forest in the calculation of AHA for the 2008-2018 FMP. Although much of the wood in this area was too young to allocate, pockets of mature timber in this area were deferred from harvest in anticipation of future re-classification as park.
- Wood fibre markets are depressed.
- In the 2008-2018 FMP a number of habitat types only meet minimum targets for several terms; habitat supply issues are noted throughout the FMP.
- Only 59% of the selected allocation was in caribou blocks (including planned future caribou blocks). This means that 41% of the allocation was in non-caribou areas and therefore was available for harvest beyond 2018. Minimizing Term 1 harvest in the non-caribou zone would

have helped mitigate predicted short-term wood and habitat supply issues noted throughout the FMP.

The audit team questions the decision to increase harvest for the 2008-2018 term on the basis of company solvency and planning for a new mill facility in Red Lake. The audit team believes that some objectives were left to be compromised in favour of others and feels that more consideration should be given to the balance of plan objectives in the 2008-2018 FMP; the following recommendation is made.

Recommendation 3: The audit team recommends that RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.

Selection criteria were developed for harvest operations that were consistent with the eligibility criteria. No selection criteria were provided for planned renewal or maintenance operations, but this is no longer an FMPM requirement. Clear rationale was provided for selecting areas for operations as was a thorough detailing of the selected harvest area. This included the equitable division of area between the first and second five-year terms of the plan.

Suitable rational was provided for the substitution of some older wood for younger wood (more 81-100 year age-class wood was selected than modeled). The insignificance of the substitution was also demonstrated later in the plan. Planning for contingency harvest area also met FMPM requirements.

Planning requirements for residual stand structure were met including provision of residual patches, individual wildlife trees and forest floor woody material. Planned monitoring of operations was also well conceived and levels are consistent with planned operations.

Annual Work Schedules

Annual Work Schedules were prepared in accordance with the FMPM and were consistent with the FMP. The MNR area forester also prepared an insect pest management proposal in 2009 to address an outbreak of jack pine budworm. The proposal met FMPM requirements (2004 FMPM section D-6). The document was well written and supported by analyses and scientific literature. The proposal also had a letter of endorsement from forest industry representatives including White Feather Forest Management Corporation.

Forest Operations Prescriptions (FOPS) were prepared for each stand and were consistent with the FMP. Interviews and field observations revealed that prescriptions were made by a registered professional forester. These prescriptions were consistent with the FMP objectives and appropriate for the site conditions.

4.4 Plan Assessment and Implementation

Areas of Concern

The audit included examination of a number of field stops to examine harvesting and road construction activities. A range of AOC prescriptions were sampled as part of these examinations including protection for water quality, fisheries on cool water systems, access to tourism values and moose aquatic feeding areas. Examination of the AOCs at these sites demonstrated that AOC prescriptions applied adequate protection of the value(s) in question and were consistent with the relevant FMP and AWS. AOC boundary control was excellent with no deviations from planned AOC prescriptions seen.

Harvest

During the field audit a variety of harvest sites were viewed including shallow-soiled sites, an assortment of soil texture types and various moisture regimes. Pre-harvest forest types included mainly conifer-dominated and some mixed wood stands. Salvage of blown down timber was also viewed at one site.

The field audit review included a selection of contractor work completed across all years of operations and all seasons.

All harvest operations consisted of bringing full trees to roadside for processing. Roadside operations included round wood processing and chipping of tree tops at some sites. These operations sometimes occurred in relative succession but often, due mainly to markets, there was significant delay between removal of the sawlog and then pulp material. This led to long periods of inactivity on some blocks, delay of compliance monitoring and an issue regarding failure to complete suspension reports on some of these blocks. This issue is discussed in the monitoring section.

Good harvest boundary control was noted during the field audit and there were few compliance inspection issues related to trespass. Bypass of timber was also minimized on sites viewed and excellent utilization was noted at the salvage block. Stray bundles were noted at a few sites and incidental merchantable pieces were noted in unpiled slash piles but otherwise good to very good utilization was noted in most blocks. Site disturbance was minimized on most sites; however, significant rutting along the main skid trails was noted at a few sites.

In the 2003-2008 FMP it is clear that, as a component of a plan objective to minimize loss of productive land, slash was to be piled and burned. In the 2008-2018 FMP there is conflicting direction regarding slash management: page 187 suggests slash is to remain at roadside and site prepared where possible whereas page 197 notes slash pile burning is to occur on 15,500ha (~90% of the allocation).

Inconsistent slash management was witnessed during the field audit, in some cases within the same block. For example, piling and burning, piling, and leaving slash unpiled was witnessed at Block 313. According to the main contractor for the Forest, when possible, slash was to be piled in conjunction with loading and hauling operations to maximize efficiency. Slash pile burning was then to occur in accordance with the prescribed burn plan in the relevant AWS. However, timing of operations, block conditions and weather sometimes confounded these efforts.

Chipper debris management was also found to be an issue during the audit. The 2003-2008 FMP included a strategy to minimize productive land loss by "treating" slash and chipper piles but it is not clear what the treatments might be. The 2008-2018 FMP direction regarding chipping debris is also not clear: on page 187 two distinct conflicting directions are provided – "*chip waste is to be redistributed*" (into the cutover) and "*left at roadside*" – clarification needs to be provided.

During the field audit chipper debris was sometimes heaped and sometimes spread over areas but there was no site preparation or other treatment of the debris to ensure future tree cover. Instances where chipper debris coverage was less than 15cm thick were found; these would certainly not be difficult to treat.

Productive land is being covered by waste fibre and tree growth in these areas will be delayed by several decades; this conflicts with stated plan objectives to minimize loss of productive land.

Recommendation 4: The audit team recommends that RLFMCL amend the 2008-2018 FMP to provide clarity regarding waste fibre management to reclaim productive land. This new direction must then be consistently implemented.

According to the 2003-2008 and 2008-2018 FMPs there are no two-pass operations on the Forest. As such, there were no two-pass operations noted during the audit term. However, one two-pass operation was noted in a block harvested just outside the audit term (post April 1, 2010). At this site all conifer had been removed and aspen was left standing. According to company staff, the aspen is to be removed in the future when operations are completed in adjacent areas and sufficient aspen volumes are available for shipment to a local mill. As per the silviculture guide and the Scaling Manual, over story poplar must not be permitted to interfere with development of forest renewal. Although outside the audit term, it is suggested herein that the 2008-2018 FMP be amended to include two-pass operations so that these operations are compliant with the FMP.

Silviculture

The renewal program was consistent with the FMPs and renewal practices were appropriate for the site conditions. Most upland conifer stands are prescribed for site preparation followed by planting and seeding. The treatments have been in use for several decades and are producing good results.

Despite the collapse of forest products markets, RLFMC has maintained its renewal program to a high standard in terms of area treated and quality of treatments. There may be opportunities to expand the aerial seeding program and natural regeneration on some sites. Many sites have abundant seedlings that emerge from residual jack pine cones. These opportunities could be considered in the development of the next forest management plan.

Planted spruce seedlings that exhibit excellent survival and growth are from improved seed sources. The Beauregard seed orchard is the source for these seeds and appears to be well maintained by RLFMC, Forest Genetics Ontario and the Superior Woods Tree Improvement Cooperative. Seed collection, storage and seedling procurement tasks appear to be properly managed and support an effective renewal program.

Although 187 ha of tending was planned each year, no tending treatments occurred during the audit term. The climate, soils and even-aged fire origin stands create conditions that favour the renewal of conifer forests free from competing vegetation on the vast majority of sites.

The audit team examined three sites that had been sprayed with Bt, a biological control agent, to suppress an outbreak of jack pine budworm. The treatment was consistent with the insect pest management proposal prepared by the area forester. Treated and adjacent untreated areas both showed very little signs of damage from the outbreak. A proposed spray program for 2010 was cancelled because the larval counts suggest the threat of the outbreak has subsided.

Access

Field sampling included road construction and maintenance activities, as well as water crossing installations performed during the period under audit. A sample of road construction and maintenance activities funded under the Road Construction and Maintenance Agreement was also examined.

While road construction was generally well done, the use of corduroy for road beds was of concern. Several instances of corduroy use were found in situations where it was unwarranted. The audit team suggests that the use of corduroy be limited to circumstances where it is specifically warranted e.g. to provide a road base in swampy areas. No recommendation is warranted since the instances were few and the amount of corduroy used was limited.

The field stops included a number of harvest blocks in that part of the unit managed for woodland caribou. While both FMPs that were within the scope of this audit speak to road rehabilitation and the 2008-2018 FMP refers to road rehabilitation in caribou blocks, no rehabilitation of operational/tertiary roads was found. Even where site preparation of the harvest block had occurred, the road network was left without rehabilitation.

Recommendation 5: The audit team recommends that RLFMCL ensure that operational roads in caribou blocks be purposefully rehabilitated in accordance with the FMP.

Examination of numerous water crossing was completed as part of the field audit. Culvert installations were found to be well placed with care taken to determine a suitable location for crossing placement. The same level of care was not carried through to completion for many installations thereby not meeting requirements including: bank sloping was steep and therefore unstable; riprap use was inadequate; and road approaches to crossings were not properly developed to protect water quality.

Recommendation 6: The audit team recommends that RLFMCL ensure that all water crossing installations are completed according to all required aspects of the Environmental Guidelines for Access Roads and Water Crossings.

Impeding water flow through road construction is a common but largely avoidable problem through the use of well-placed drain pipes. Many examples of impeded operational/tertiary road construction were found on the field stops. In some cases corduroy was used with the intent of permitting water to flow through the road. Other examples were found where no drain pipe had been used forcing water flow to be impeded.

Recommendation 7: The audit team recommends that RLFMCL ensure that water flow is not impeded by road construction and forest harvesting activities.

The field portion of the audit included examination of a number of aggregate pits to assess compliance with Ontario's standards for aggregate pits. Several examples were found where operators had not abided by the standards including: lack of sloping to angle of repose during periods of pit inactivity; working faces that exceeded height limitations; working faces too close to tree lines; and working close to roadways with regard to ditching and slope steepness. Some requirements of these standards were developed to ensure that pits are safe for workers during active periods and for the general public once the pit is no longer being operated.

Recommendation 8: The audit team recommends that RLFMCL ensure that all aggregate pits are properly rehabilitated during periods of inactivity.

4.5 System Support

During the period of this audit, RLFMCL has contracted forest management duties to Domtar, one of its Class A shareholders. During the on-site visit for this audit, all responsibilities of RLFMCL were performed by a single Domtar employee. Since little to no operations had been occurring for some time and the findings related to plan implementation could not be directly correlated with staffing levels, no shortcomings in staffing were found although staffing levels were minimal. Assurances were given that additional support would be provided if required.

MNR staffing and document control was excellent with MNR staff providing substantial support for RLFMCL during the difficult economic period.

4.6 Monitoring

Compliance

RLFMC produced a strategic Compliance Plan for the 2003-2008 and 2008-2018 FMPs. The latter was approved with the signing of the 2008-2018 FMP on December 3, 2007, well in advance of commencing operations on April 1, 2008. The 10-year Compliance Plan was well written and met all requirements including a description of compliance goals, priorities and strategies as well as reporting responsibilities.

Annual compliance plans were also produced by the company for each AWS during the audit term; each notes specific reporting to be completed by block and identify high importance operations and potential issues.

MNR did not have a District Compliance Plan during the audit term but these were no longer a requirement in this period. MNR completed quarterly compliance spreadsheets during the audit term that quantified review targets for each forest operation and forest management plan development component and identified achievement. This was determined to be an effective system for planning and tracking monitoring tasks.

According to the compliance plans and compliance reporting audited, the company maintains a compliance oversight role whereas forest resource licence holders (FRLs) are required to be compliant and to complete reporting on their operations. In practice, RLFMC staff completed most of the reviews/reporting during the audit term or FRLs hired independent inspectors to complete reporting. RLFMC reviewed all reports prior to submission to MNR.

Company compliance reports viewed were timely and included required text regarding observations. It was noted that pictures/scanned maps, etc. were not included in company reports. Although not required, these visual products can add perspective/clarity and should be considered for inclusion in future reports. MNR reports viewed were comprehensive and included digital pictures and scanned maps as necessary to aid in discussing findings.

According to annual reports for the first four years of the audit term (2009-2010 AR not required until November, 2010) and FOIP reports for the entire audit term there were 128 compliance reports completed (96 by the company/FRL and 32 by MNR - see Table 1 below). The number of inspections completed by the company/FRL and MNR were reasonable given the reduced operations during the audit term and ranged from one report completed for 10-25 ha harvested during the term.

Table 1. Summary of compliance reporting for the audit term.

		2005-06	2006-07	2007-08	2008-09	2009-10	Total
FOIP Reports	SFL Reports	30	9	20	33	4	96
	MNR Reports	13	5	12	1	1	32
	Total	43	14	32	34	5	128
Non-compliance	SFL NC	1	0	0	0	0	1
	MNR NC	1	1	0	0	0	2
	Total	2	1	0	0	0	3

Note that there were some disagreements between and within ARs regarding numbers of reports completed and non-compliances found and there were also differences between ARs and FOIPs; FOIP reporting was taken as being correct in this audit. These issues are discussed with Annual Reports later in this section.

There were only three non-conformances found during the term (two by MNR and one by the company). One non-compliance was related to not leaving enough wildlife trees, one was due to a winter crossing issue and one was due to site disturbance.

As discussed in the Plan Assessment and Implementation section, there were a few operational issues noted during the field audit that potentially should have been noted by the company or MNR during compliance monitoring (e.g. stray bundles, insufficient use of drainage culverts, etc.). However, differing conditions during actual monitoring versus the audit could have been a source of the discrepancies. For example, a compliance monitoring report for one site audited noted about 15 cm of snow cover at the time of inspection; this may have concealed the stray bundles found during the audit. This is not considered a significant issue in this audit and no recommendation is made but a suggestion is given to review operations in snow-free conditions or utilize supplemental aerial photography to identify stray wood and other issues.

According to records and interviews RLFMC delivered an effective prevention/education program during the audit term; staff were well trained to meet the requirements of forest management on the Red Lake Forest. The program included annual updates with the contractors and training that focused on new regulations and requirements. In addition, pre-work meetings are conducted between RLFMC and contracting staff that include start up instructions and detailed maps for road building, harvesting, silviculture, etc. This documentation is well organized by RLFMC through use of block numbers.

As discussed in the Plan Assessment and Implementation section, roadside processing of some blocks during the audit term occurred in two distinct phases – removal of sawlogs and consequent chipping of tops. Although the company is lauded for the excellent utilization that occurred in these blocks, the process of suspending blocks during pauses in operations was not always followed. For example, Block 313 was started on March 2006 and completed on June 2008 but there was no suspension report during suspended operations. Block 314 was started on August 2007 and completed on June 2008 with no suspension. However, a suspension report was used for Block 305, in which operations started in June 2005, suspended in March 2006 and completed in April 2007.

The 2003-08 Compliance Plan page 18 notes that "*A suspended operation report will be submitted for harvest blocks where operations are suspended…*". The same text is in the 2008-2009 and 2009-2010 AWSs. This direction was not consistently followed during the audit term; however, as of April 1, 2010 the Compliance program has been extensively revamped. This included removing the requirement for suspension reports. Instead, operational status notifications are to be provided when operations are temporarily suspended (a maximum two year period for suspending operations is still in place). Since there is no longer a requirement to complete suspension reports no recommendation is made in this audit regarding the non-compliant reporting noted.

Silviculture

RLFMC surveyed just over 7,000 ha using a mixture of extensive aerial and intensive ground plot based surveys (modified well-spaced free-growing methodology). This met the planned targets and is appropriate given past harvest and renewal levels on the Forest. The information summarized from these FTG surveys helped to update the forest inventory for the 2008-2018 FMP and was used to calibrate the Sustainable Forest Management Model (SFMM). These results were also used in the annual reports to help further rationalize silvicultural treatment packages.

The audit team verified some of the survey results by assessing the FRI description for the surveyed stands against observations made from the helicopter. There was reasonable agreement between the survey results and the audit team observations. Field observations found sites were regenerating to acceptable species within acceptable time frames.

The modified well-spaced free-growing method generates species composition as a percentage of tree density (number of seedlings per hectare). FRI species composition is based upon basal area (similar to volume or biomass) and hence the larger trees tend to form a higher percentage when compared to composition derived by total stem counts. The agreement between audit and survey descriptions becomes stronger when this factor is taken into account.

ARs, when completed properly, report silviculture success to be about 50% (did the forest units match those predicted in the SGR) and regeneration success (did the forest meet acceptable stocking and height requirements within a specified time frame) of about 90% or greater. These are typical results in Ontario. The MNR is examining better ways to report silvicultural effectiveness than current FMPM requirements.

RLFMC has made efforts to develop and test silviculture standards and to update the FRI; these efforts are noteworthy. However, the reporting of these efforts in the Annual Reports could be improved upon in future reports, as noted in the following section of this report.

Annual Reports

Annual reports were submitted on time during the term and were reviewed by MNR with suggested changes brought directly to the attention of RLFMC staff at face-to-face meetings. Formal documentation of the review findings was not prepared for these meetings or available for audit. The 2004 and 2009

FMPMs require that results of ARs reviewed by MNR be provided to the plan author. The FMPMs do not explicitly state that a written list of the review results needs to be provided so the face-to-face meetings used during the audit term met the requirements. However, District MNR should formalize the review of ARs to provide a permanent record, in digital or hard copy form, of review comments to allow auditing of review comments and required changes to the ARs. This would be particularly important for the Year 3, 7 and 10 ARs.

ARs included most required components and text but there were deficiencies and errors noted in the reports; it was evident that the reports were not carefully prepared or reviewed. Formalizing the review process may alleviate some of the issues noted.

The most significant omission was the lack of required discussions. For example, discussion regarding the reasons for non-compliances or actions taken to prevent future occurrence was absent. Also, there was no discourse regarding the lack of a planned spray program during the audit term and the AR synopses do not include implications on the achievement of objectives of the FMP. For example, the 2005-2006 AR notes that "*no issues arose which will impact the sustainability of the approved forest management plan*". This is certainly not a discussion of implications of operations on plan objectives. Subsequent ARs showed little improvement in this regard – the 2006-2007 AR notes that "*With lower than forecasted harvest levels, achieving objectives related to silviculture will also be affected. With only 49.3 % of the area harvested at the end of the 4th year it is anticipated that objectives related to the harvest and renewal will be much lower than forecasted"*. The specific implications are again lacking.

Other concerns with ARs include missing tables, disagreement between text and tables and lack of discussion for important issues.

The FMPM clearly outlines the requirements of annual reporting. In addition, the Ontario Professional Foresters Association has clarified the accountability of members that certify annual reports through Practice Bulletin #4. The OPFA direction should be remembered during certification of future ARs.

Recommendation 9: The audit team recommends that RLFMCL and MNR ensure that Annual Reports are complete and accurate.

4.7 Achievement of Management Objectives and Sustainability

Year 10 Annual Report

The 2007-2008 Annual Report (AR) for the Red Lake Forest was prepared to report on the activities carried out between April 1, 2007 and March 31, 2008 as well those for the Year 10 Annual Report as described in the 2004 FMPM.

The report discusses the depressed state of the forest industry and its impacts on the RLFMCL and management of the forest as this relates to the requirements of the annual report.

Consistent with the discussion in Section 4.6 Monitoring: Annual Reports, the 2007-2008 AR has a number of deficiencies which have been considered in the associated recommendation made in that section. The specific deficiencies of this report are described in Appendix 1 under the recommendation associated with Section 4.6 Monitoring: Annual Reports.

Achievement of Management Objectives

Assessment of the achievement of management involved examining the objectives described in the 2003-2008 FMP and the 2008-2018 FMP. Both sets of objectives are presented in Appendix 2 tables with auditor assessment and comments. A summary of each provided objective follows.

All objectives from the 2003-2008 FMP were considered to have been met or partially met, none were not met. The key factor in many of the objectives being only partially met was the low harvest level on the forest during the period in question. Actual harvest levels on the Forest were found to be too low to permit meeting many of the objectives.

The FMP contained no specific objectives related to the provision of forest cover. Rather, the planning team decided that the objectives related to forest diversity (objectives 1-6) would serve for the provision of forest cover for any natural or environmental functions, and that objectives 7 through 13 (social and economic matters) would serve for the provision of forest cover for social and economic benefits.

One silvicultural objective was contained in the FMP. Although the primary focus of this objective was to direct silviculture, its association with a very low actual harvest was found limiting. The objective was considered to have been partially met.

Objectives for the 2008-2018 FMP were assessed. The Aboriginal involvement objective was partially met in that First Nation communities were contacted; however, Métis people were not consulted in the development of the FMP. Recommendation 1 is provided to address this concern.

Most of the objectives and related targets/desired levels developed were reasonable. However, the audit team felt that there was too much focus on meeting wood supply targets over other select plan objectives in the 2008-2018 FMP. Recommendation 3 is made to review the balance of plan objectives to ensure their full consideration in the plan.

Trend Analysis Report

As part of the Independent Forest Audit, a Comparison and Trend Analysis of Planned vs. Actual Forest Operations Report (TAR) (see Appendix 7) was required to be completed by RLFMCL for the Red Lake Forest. The TAR covered the management plans from 1991 through 2008. The report was prepared according to direction provided in the 2004 and 2009 FMPMs.

While the planned annual harvest area has dropped from 2,078 ha in the 1991 plan to 1,428 ha in the 2003 FMP, the actual annual harvest levels have dropped further from 1,873 ha in the 1991 plan to 848 ha during the 2003-2008 plan. This reduction in harvest provided a major component of the TAR, citing the impact on the forest from the outright closure of some facilities (e.g. Bowater, Ignace; Abitibi Consolidated Company of Canada, Kenora; Multiply, Nipigon), the idling of other facilities (e.g., Mackenzie Forest Products, Sioux Lookout; Kenora Forest Products, Kenora).

Harvest volume data for the period showed a decrease in annualized planned volumes (m^3/yr) from 257,000 to 175,000 (see Table 2). Actual harvest levels also decreased. Utilization of planned volume levels remained fairly constant at more than 85% until the 2003-2008 period when it fell significantly to 59%. Planned and actual volumes per hectare showed some variability (not uncommon in Ontario), although have exceeded 80% in the latest two terms.

Table 2. Annualized planned and actual harvest levels over the period.

	Planned/Actual			
	1991	**1996**	**1998**	**2003**
Volume (,000 m^3)	257 / 218	209 / 187	175 / 155	175 / 129
Harvest Area (ha)	2,078 / 1,873	2,636 / 1,584	2,332 / 1,703	1,428 / 848
Harvest (m^3/ha)	124 / 116	79 / 118	75 / 91	122 / 152

Since 1998, the area artificially regenerated has neared or surpassed the harvest area. The figures indicate heavy reliance on artificial renewal methods. The artificial and natural regeneration numbers during the 2003-2008 term exceed the actual harvest numbers for the same period indicating a focus on treating backlog areas.

Table AR-10, Summary of Harvest and Regeneration Trends, shows that 8,984.1 ha of regeneration surveys were conducted with 100% being deemed successfully regenerated. Silviculture success as defined by successfully regenerating to the projected forest unit was 51%. Although this appears low, it is not uncommon in Ontario with changing forest units over time. The TAR also notes that natural regeneration of jack pine into spruce plantations and the corresponding change of forest units has some impact on the lower silviculture success.

Conclusions Regarding Sustainability of the Crown Forest

In developing its conclusions regarding sustainability of the Red Lake Forest, the audit team considered information from a number of sources, principally the:

- 2003-2008 FMP; 2008-2018 FMP
- Annual reports of the period
- Comparison and Trend Analysis Report
- 2005 IFA Audit Action Plan Status Report
- Interviews with staff of RLFMCL and Red Lake District MNR
- Field observations

The severe economic downturn that occurred during the period under audit had significant impacts to management of the Forest. Most of the mills receiving wood from the Forest at the beginning of the period under audit (April 01, 2005) had either suspended or terminated operations at the end (March 31, 2010). The company contracted to manage the Forest by RLFMCL ceased to exist and forest management was now being contracted to Domtar. Although some improvements are required, the Forest was generally well managed, particularly given the fiscal challenges of the times.

The level of harvest during the audit period was very low and will remain so without changes to market conditions. The corresponding lack of revenue for RLFMCL will induce further challenges to its viability.

Many of the management objectives in the 2003-2008 FMP were assessed to have been partially met due to market conditions and the low demand for wood fibre. Although these factors are beyond the control of local management, the impact on the objectives is significant. Silviculture treatments as examined in the field audit were found to be appropriate and properly implemented.

The audit team concluded that forest sustainability is being achieved on the Red Lake Forest.

4.8 Contractual Obligations

Sustainable Forest Licence 542548, granted to Red Lake Forest Management Company Limited for the Red Lake Forest, contains a series of licence conditions for the company to comply with to provide for sustainability of the Crown forest. The audit team has assessed each of those conditions as presented in Appendix 3.

The audit team considers two of the licence conditions to have been partially met and the remainder to have been met by the company. The following notes are provided:

- **Payment of Forestry Futures and Ontario Crown charges:** Not Met.
    - Although RLFMCL has no amount owing, both Crown charges and Forestry Futures Trust charges were not paid in full. The outstanding balance was owed by a harvesting contractor and the MNR has been attempting to have the balance paid.

- **Preparation of FMP, AWSs and reports; abiding by FMP, and all other requirements of the FMPM and CFSA:** Partially Met.
    - FMPs and AWSs generally prepared as required. ARs, including Year Ten enhanced portions, were found in need of improvements. Recommendation 9 addresses these concerns.
    - Planned rehabilitation of operational roads not performed as planned. Recommendation 5 is provided to address this observation.

- **Forest Renewal Trust account minimum balance:** Not Met.
    - The minimum balance for the forest renewal trust account had not been maintained by overlapping licencee(s). Payment was made in full in July 2010.

- **Compliance inspections and reporting; compliance with compliance plan:** Partially met.
    - Company compliance reports viewed were timely and included required text regarding observations. Concerns were noted related to timing of inspections after snowfall; a suggestion is made to review operations in snow-free conditions or utilize aerial photography to supplement field inspections.

4.9 Conclusions and Licence Extension Recommendation

Conclusions

Management of the Red Lake Forest was generally well done although in need of improvements.

Public Consultation and Aboriginal Involvement: Plan development met all requirements for public consultation. The public consultation was thorough and adhered closely to the FMPM schedule.

The LCC endorsed the 2008-2018 FMP indicating active involvement during in the planning process. Members felt that their input provided value to FMP completion.

MNR illustrated active relationship building with First Nation communities in the area including FMP involvement and provision of funding for other initiatives. Métis people were not invited to participate in the forest management planning process.

Forest Management Planning: The forest management plan included some good discussion but was found to be missing a thorough management unit description to set the context for subsequent sections of the plan and for use by future forest planners.

Plan Assessment and Implementation: Slash management was found to be inconsistent and chipper debris a concern resulting in loss of productive land. The 2003-2008 FMP included a strategy to minimize productive land loss by "treating" slash and chipper piles but it was not clear what the treatments might be. The 2008-2018 FMP direction regarding chipping debris was also not clear.

The 2003-2008 FMP included road rehabilitation discussion while the 2008-2018 spoke directly to road rehabilitation in caribou blocks. No rehabilitated roads were observed during the field audit. Forestry activities should be consistent with those outlined in the respective FMP.

Water crossings were well planned and located but installations required more care to fully meet installation requirements. Several instances where water flow had been impeded by road construction were observed.

In a number of aggregate pits the associated standards were not met. These standards are regulatory requirements for pit operators and include measures that advance public safety.

Monitoring - Compliance: A number of concerns were observed with annual reports.

Achievement of Management Objectives and Sustainability: For the 2003-2008 FMP, achievement of management objectives were found to be compromised by the low harvest levels since many of the objectives were developed to support a higher or full harvest level.

In the case of the 2008-2018 FMP, the audit team felt that there was too much focus on meeting wood supply targets over other select plan objectives and believes that more consideration should be given to the balance of plan objectives. A recommendation is made to address this concern with emphasis to its timely completion.

Licence Extension Recommendation

The audit team concludes that, *with the critical exception* noted below, management of the Red Lake Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Red Lake Forest Management Company Limited. Forest sustainability is being achieved, as assessed through the Independent Forest Audit Process and Protocol. The critical exception is as follows: The decision to increase harvest for the 2008-2018 term on the basis of company solvency and planning for a new mill facility in Red Lake is questionable. The audit team believes more consideration should be given to the balance of plan objectives in the 2008-2018 FMP and the following recommendation is made. Therefore, the audit team recommends the Minister extend the term of the Sustainable Forest Licence 542548 for a further five years, only upon confirmation that the following condition has been satisfied: RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.

APPENDIX 1 – RECOMMENDATIONS

Independent Forest Audit – Record of Finding

Recommendation 1

PRINCIPLE 2: PUBLIC CONSULTATION AND ABORIGINAL INVOLVEMENT

Criterion: Criteria 2.5. Aboriginal Involvement in Forest Management Planning. To examine the involvement of Aboriginal communities in forest management planning and its benefits.
2.5.1 Aboriginal community consultation and involvement in FMPs, amendments, contingency plans
Procedure(s): 1. Review and assess whether reasonable efforts were made to engage each Aboriginal community in or adjacent to the management unit in forest management planning as provided by the applicable FMPM and assess the resulting involvement and consideration in the plan or amendment.

Background Information and Summary of Evidence: Considerable effort was directed at ensuring Aboriginal involvement in the forest management planning process. Although no Aboriginal communities are located within the Red Lake Forest, consultation efforts were extended to three groups: Pikangikum First Nation (Treaty 5) and Lac Seul First Nation (Treaty 3) have traditional use areas which extend into the Red Lake Forest and may be affected by forest management activities. Band Members living off-reserve predominantly comprise Lac Seul First Nation's interest in the Red Lake Forest. Aboriginal peoples living off-reserve have historical family ties to the Red Lake area even though they have chosen to make their homes in Red Lake. Lac Seul First Nation has a direct interest in any forest operations in the Red Lake Forest and consultation efforts will reflect these interests.

Pikangikum and Lac Seul were offered representation on the planning team. No community identified a planning team representative. Subsequently, a representative of Pikangikum was invited to attend all planning team activities as a guest as a capacity building opportunity for the Whitefeather Forest Management Company, who were preparing a 2012 FMP.

MNR assigned an Aboriginal Liaison to contact communities on a regular basis from start to plan approval. An Aboriginal Consultation Approach was offered to each community and the Aboriginal consultation process was followed. Lac Seul requested and received community presentations on the Forest Management Plan.

Three Aboriginal communities are included in the "Aboriginal Background Information Report" for the FMP:

- Off-Reserve Red Lake Aboriginal Community
- Pikangikum First Nation
- Lac Seul First Nation

The Métis Nation of Ontario brought forth a position that it had not received an invitation to participate in the consultation process regarding forest management. In that position, the Métis Nation of Ontario asserted that its members are rights-bearing Aboriginal people, with the right to be meaningfully consulted.

MNR Red Lake confirmed that the Métis Nation of Ontario had neither been on the mailing list for the 2008-2018 FMP nor had it been invited to participate in the planning process for the 2008-2018 FMP.

Discussion: The 1982 Constitution Act of Canada in Section 35(2) states; "In this Act, "Aboriginal peoples of Canada" includes the Indian, Inuit and Metis peoples of Canada." Since the FMPM provides for Aboriginal involvement, inclusion of Metis people needs to be addressed.

A MNR Red Lake representative offered that the Métis Nation of Ontario has been added to the MNR mailing list.

Conclusion: The inclusion of Métis people in the invitation to participate forest management planning process should have been considered and assurance that it will be considered in future forest management planning is needed.

Recommendation 1: The audit team recommends that MNR consider formally including Métis people in its invitation to participate in the forest management planning process.

Independent Forest Audit – Record of Finding

Recommendation 2

PRINCIPLE 3 – FOREST MANAGEMENT PLANNING

Criterion: Criteria 3.3 Management Unit Description. To review the appropriateness of the FMP management unit description and how it was used in plan preparation.

Procedure(s): 2.2 Assess implications of the FRI on development of the FMP by considering land ownership, land type, provincial forest type, and age class.

Background Information and Summary of Evidence: The FMP was well written and included most required components. Portions of the Management Unit Description component of the 2008-2018 plan lacked required detail:

- the planning inventory development section included little discussion regarding reliability of forecasts/assumptions;
- boundary dispute with WhiskeyJack Forest identified but not discussed;
- size, location and implications of the proposed extension of Woodland Caribou Park into the Red Lake Forest is not included;
- consequences of approximately 19,000 ha of patent land in the center of the Red Lake Forest are not discussed;
- implications of the age class imbalance are not included. The imbalance is noted to be a considerable limit to objective achievement in several subsequent sections in the FMP but is not entertained in the management unit description.

Discussion: It was noted that there were sections of text that did include good discussions of implications on operations – for example, the fish and wildlife and EMA sections – but this was not the norm. The management unit description is needed to set the context for subsequent sections of the plan and for use by future forest planners.

Conclusion: Factors that could or will affect planned operations should be fully discussed as per FMPM requirements. Amendment of the 2008-2018 FMP to include this information will fulfill the requirements for the 2008-2018 FMP and highlights these topics for consideration in the next FMP for the Forest.

Recommendation 2: The audit team recommends that RLFMC amend the 2008-2018 FMP to include required detail in the management unit description.

Independent Forest Audit – Record of Finding

Recommendation 3

PRINCIPLE 3 – FOREST MANAGEMENT PLANNING

Criterion: 3.5.12 Determination of Sustainability

Procedure: Assess whether the FMP provides for the sustainability of the Crown forest on the management unit based on the collective achievement of the objectives, comparison of proposed operations to the LTMD and the associated rationale for any management objectives that are not achieving the desired levels.

Background Information and Summary of Evidence: According to the 2008-2018 FMP, meeting the short-term (term 1) annual volume targets of 170,000 m3 SPF and 30,000 m3 poplar "*was important to the planning team, the LCC, Red Lake Municipal council and the Red Lake Chamber of Commerce in order to stimulate the local economy potentially with a new mill in Red Lake. An additional consideration for harvest volumes and area are that the Caribou A Blocks and one Caribou E Block must have harvest completed within the 10-year period of this plan*".

The planning team further rationalized the volume targets – "*The harvest volume proposed for the 2008 FMP is slightly greater than the historical and benchmark levels. It should be noted that most FMPs in the past have had approved allocations which were not fully utilized during plan implementation.*"

Balancing of plan objectives is also discussed – "*Increase wood supply to support potential industrial expansion and additional non-industrial goods and services, parks and protected areas is generally not available from the Red Lake Forest. In order to achieve greater harvest volumes or increase protected areas, significant trade-offs are required in the achievement of non-timber objectives – specifically spatial management of caribou and marten habitat through time*" and "*Scoping analyses for wildlife habitat was also conducted non-spatially. Investigations indicated that habitat for selected wildlife species would generally decrease over time since the majority of species selected for this plan preferred mature conifer habitat which is in limited supply on the Red Lake Forest over the next 50 years*". Also, "*retention of old growth forest at the levels present at the start of this plan would require significant trade-offs in socio-economic benefits from the forest associated with timber harvesting*".

Discussion: Mainly due to the age class imbalance but strengthened by the selected term 1 volume targets, marten spatial habitat and other habitat for species that prefer older conifer is predicted to decline over the next several decades. In Table FMP-13 and related text and other sections of the plan it is noted that the short-term target for the spatial marten objective is met due to a projected 0.1% increase from 2008 to 2028 and that the guideline desired level of 10% is not feasible. Rationalization for marten habitat shortages and decreases in other wildlife habitat in the FMP was normally limited to the age class imbalance but planned harvest had some effect.

The following factors suggest the balance of objectives selected was not optimum:

- Historic harvest levels do not support an increase in harvest.
- Even if the proposed mill facility in Red Lake were to open, the nearby Trout and Whiskey Jack Forests are under-allocated and available to supply wood volume. In addition, the Whitefeather Forest to the north is currently in plan development and could be available to provide fibre to area mills.
- Previous plans for the Red Lake Forest predicted decreased wood volumes during the current period.
- When compared to the previous plan there was a smaller land base to draw from. Proposed extensions to Woodland Caribou Park of about 20,000 ha were still classified as productive forest in the calculation of AHA for the 2008-2018 FMP. Although much of the wood in this area was too young to allocate pockets of mature timber in this area were deferred from harvest in anticipation of future re-classification as park.
- Wood fibre markets are depressed.
- In the 2008-2018 FMP a number of habitat types only meet minimum targets for several terms; habitat supply issues are noted throughout the FMP.
- Only 59% of the selected allocation was in caribou blocks (including planned future caribou blocks). This means that 41% of the allocation was in non-caribou areas and therefore was available for harvest beyond 2018. Minimizing Term 1 harvest in the non-caribou zone would have helped mitigate predicted short-term wood and habitat supply issues noted throughout the FMP.

Conclusion: The audit team felt that there was too much focus on meeting wood supply targets over other select plan objectives in the 2008-2018 FMP. Overall, the decision to increase harvest for the 2008-2018 term on the basis of company solvency and planning for a new mill facility in Red Lake is questionable. The continuance of weak world markets (at the time of completing this audit report) and the historic inability to fully harvest the allocation suggest there may be little real-world impact of the planned harvest increase. However, significant changes in markets, etc. could occur over the 10-year term of the plan requiring harvest of the full allocation. The audit team believes that some objectives were left to be compromised in favour of others and feels that more consideration should be given to the balance of plan objectives in the 2008-2018 FMP; the following recommendation is made.

Recommendation 3: The audit team recommends that RLFMC and MNR review the balance of plan objectives in the 2008-2018 FMP and determine if values other than wood supply have been fully considered in the plan. This review should occur in advance of completing Phase 2 operational planning.

Independent Forest Audit – Record of Finding

Recommendation 4

PRINCIPLE 4 – PLAN ASSESSMENT AND IMPLEMENTATION

Criterion: Criteria 4.3 Harvest. To review and assess through field examination whether information used in preparation of the FMP was appropriate and assess the implementation of the management strategy.

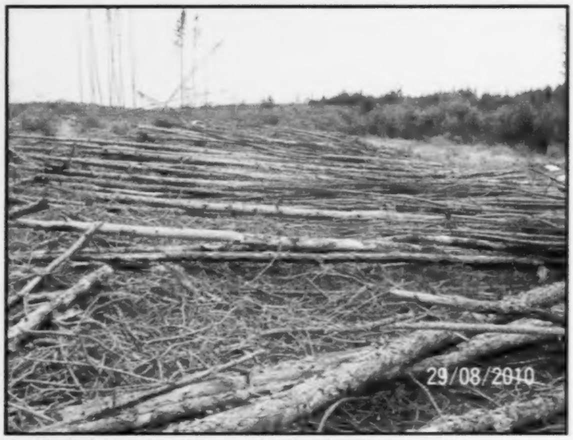
Procedure(s): Review and assess in the field the implementation of approved harvest operations. Include the following:

- assess whether: the harvest and logging methods implemented were consistent with the FOP; the FOP was consistent with the SGRs; the FOP was certified by an R.P.F. or other qualified individual, and actual operations, were appropriate and effective for the actual site conditions encountered

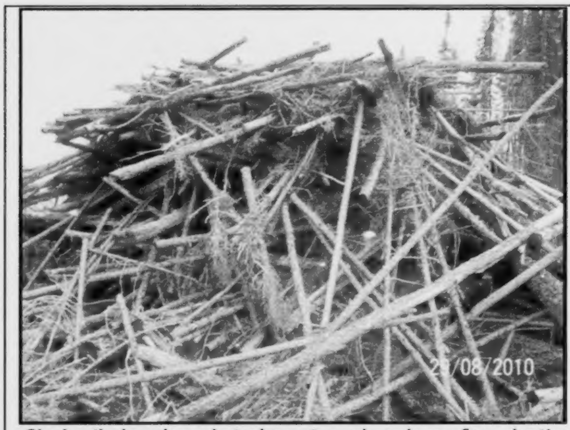
Background Information and Summary of Evidence: In the 2003-23 FMP it is clear that, as a component of a plan objective to minimize loss of productive land, slash was to be piled and burned. In the 2008-18 FMP there is conflicting direction regarding slash management: page 187 suggests slash is to remain at roadside and site prepared where possible whereas page 197 notes slash pile burning is to occur on 15,500ha (~90% of allocation).

Inconsistent slash management was witnessed during the field audit, in some cases within the same block. For example, piling and burning, piling, and leaving slash un-piled was witnessed at Block 313. According to the main contractor for the Forest, when possible, slash was to be piled in conjunction with loading and hauling operations to maximize efficiency. Slash pile burning was then to occur in accordance with the prescribed burn plan in the relevant AWS. However, timing of operations, block conditions and weather sometimes confounded these efforts.

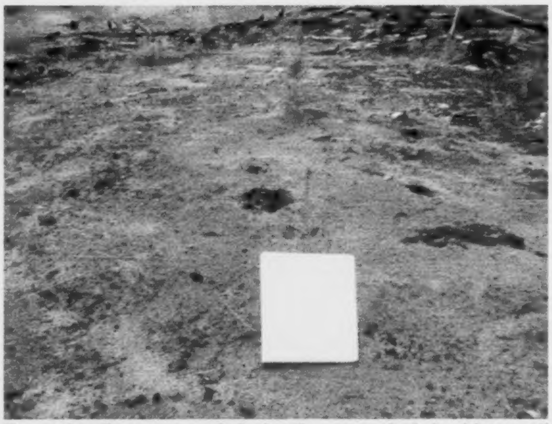
The following four photographs illustrate various slash management observations found on the audit.



Unpiled slash covering productive land.



Slash piled and ready to burn to reduce loss of productive area.

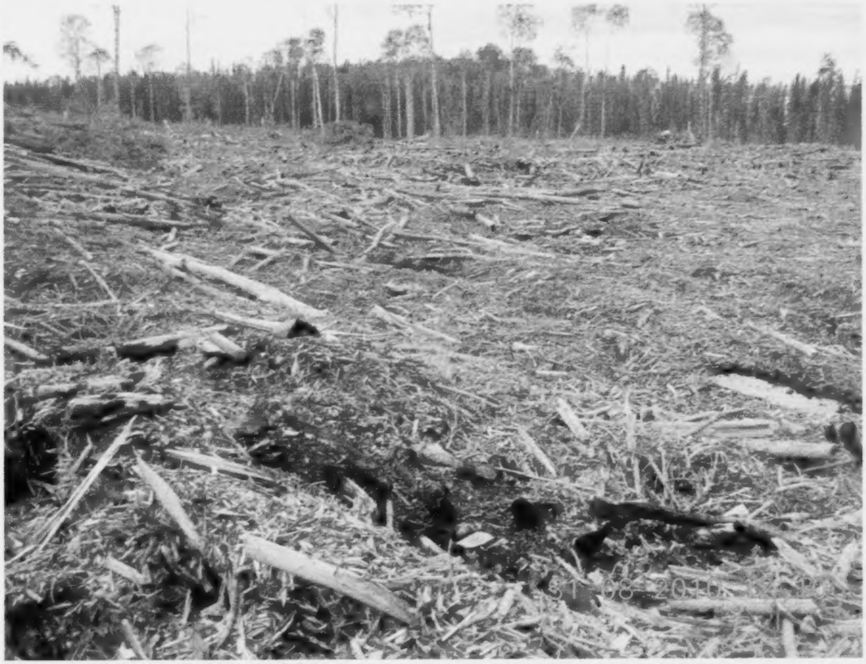


Example of recovery of slash pile area; slash had been piled and burned, with subsequent tree plant.

Examples of productive area lost to unmanaged slash piles.

Chipper debris management was also found to be an issue during the audit. The 2003-2023 FMP had a strategy to minimize productive land loss by "treating" slash and chipper piles but it is not clear what treatments are to occur on the slash or chipper piles. The 2008-2018 FMP direction regarding chipping debris is also not clear: on page 187 two distinct conflicting directions are provided – "*chip waste is to be redistributed*" (into the cutover) and "*left at roadside*" – clarification is needed.

During the field audit chipper debris was sometimes heaped and sometimes spread over areas but there was no site preparation or other treatment of the debris to ensure future tree cover.



Area of unmanaged chipper debris.

Discussion: Productive land is being covered by waste fibre and tree growth in these areas will be delayed by several decades.

Conclusion: Leaving slash unpiled and spreading chipper debris over productive area without follow up treatments to ensure future tree cover conflicts with stated plan objectives to minimize loss of productive land. Direction regarding waste fibre management must be clarified in the 2008-2018 FMP and must conform to the plan objective to minimize loss of productive land. This direction must then be correctly implemented.

Recommendation 4: The audit team recommends that RLFMCL amend the 2008-2018 FMP to provide clarity regarding waste fibre management to reclaim productive land. This new direction must then be consistently implemented.

Independent Forest Audit – Record of Finding

Recommendation 5

PRINCIPLE 4 – PLAN ASSESSMENT AND IMPLEMENTATION

Criterion: 4.7 Access
Road construction, various types of water crossings including crossing structures, road monitoring, maintenance, aggregates and any other access activities must be conducted in compliance with all laws and regulations, including the CFSA, and approved activities of the FMP, AWS.

Procedure(s): 1. Review and assess in the field the implementation of approved access activities. Include the following

- select a representative sample of each type of access activity (road construction, various types of water crossings - winter, culverts, bridges, road maintenance, decommissioning) from primary, secondary/branch and tertiary/operational roads constructed during the five-year period of the audit
- determine whether the operations implemented were consistent with
    - use management (maintenance, access control, any decommissioning provisions)
- assess whether roads have been constructed, maintained, and decommissioned to minimize environmental impacts and provide for public and operator safety

Background Information and Summary of Evidence: The two FMPs that formed the focus of this audit both speak to tertiary/operational road rehabilitation.

Specifically the 2003-2008 FMP includes the following: "Tertiary roads are constructed for short term use (generally under 5 years) and receive regeneration after deactivation. Regeneration may occur in the form of natural abandonment or with active regeneration treatments such as site preparation with seeding or planting." (page 83)

The 2008-2018 FMP provides more clear direction, specifically related to road rehabilitation in caribou blocks. "Consideration for caribou habitat management includes reforestation of operational roads, decommissioning and abandonment of branch roads (Supplementary Documentation 23). These strategies are intended to limit the movement of predators, discourage poaching, and minimize caribou behavioural changes through noise associated with human activities. Overall, these strategies will help achieve future caribou habitat management objectives." (page 204). This FMP encourages active road rehabilitation with the following statement, "Operational roads are normally not maintained after they are no longer required for forest management purposes, and are normally site prepared and regenerated." (page 204).

The field audit included blocks located in the caribou zone of the Forest. While both of the FMPs that formed part of this audit speak to road rehabilitation in caribou blocks, no rehabilitation was observed.

Discussion: While both of the FMPs that formed part of this audit speak to road rehabilitation in caribou blocks, no rehabilitation was observed. Rehabilitation of operational roads needs to conform to the FMP.

Recommendation 5: The audit team recommends that RLFMCL ensure that operational roads in caribou blocks be purposefully rehabilitated in accordance with the FMP.

Independent Forest Audit – Record of Finding

Recommendation 6

PRINCIPLE 4 – PLAN ASSESSMENT AND IMPLEMENTATION

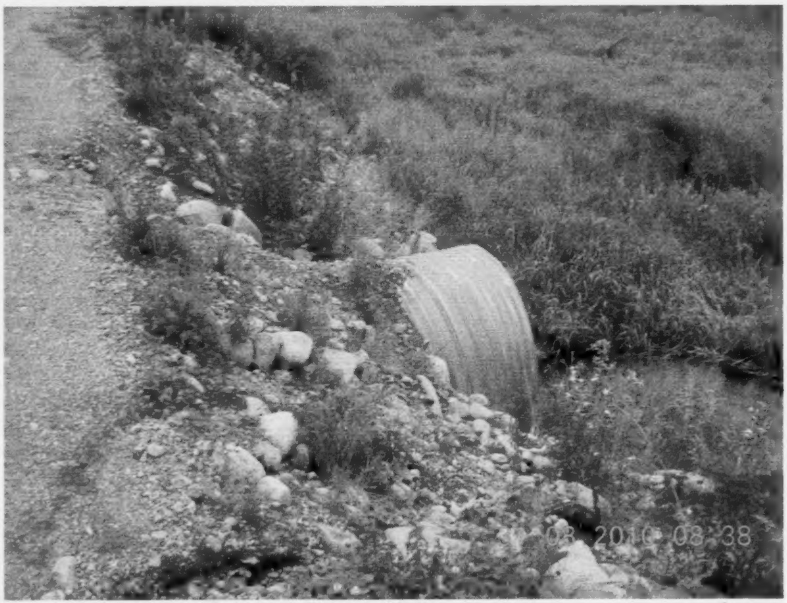
Criterion: 4.7 Access
Road construction, various types of water crossings including crossing structures, road monitoring, maintenance, aggregates and any other access activities must be conducted in compliance with all laws and regulations, including the CFSA, and approved activities of the FMP, AWS.

Procedure(s): 1. Review and assess in the field the implementation of approved access activities. Include the following

- select a representative sample of each type of access activity (road construction, various types of water crossings - winter, culverts, bridges, road maintenance, decommissioning) from primary, secondary/branch and tertiary/operational roads constructed during the five-year period of the audit
- conditions on construction including the approved water crossings structure, *Fisheries Act (R.S. 1985, c. F-14)* review, and conditions on crossings of other AOCs

Background Information and Summary of Evidence: During the field portion of the audit, a number of water crossings were examined. Water crossing locations were found to be well planned and good fill cover was used.

However, crossing installations were found to generally lack care needed to ensure that requirements for water crossing installations were fully met. More care was required in the use of riprap, with bank sloping and in the layout of road approaches to crossings. The photograph below provides an example of the problems observed.



Example of water crossing installation with poor bank sloping, no riprap and erosion due to improper road approaches.

Discussion: Improper water crossing installations have increased risk of failure. Specifically, the audit team found examples with improper bank sloing and stabilization and erosion due to improper road approaches to crossings. All required aspects of installations should be implemented for all water crossings.

Recommendation 6: The audit team recommends that RLFMCL ensure that all water crossing installations are completed according to all required aspects of the Environmental Guidelines for Access Roads and Water Crossings.

Independent Forest Audit – Record of Finding

Recommendation 7

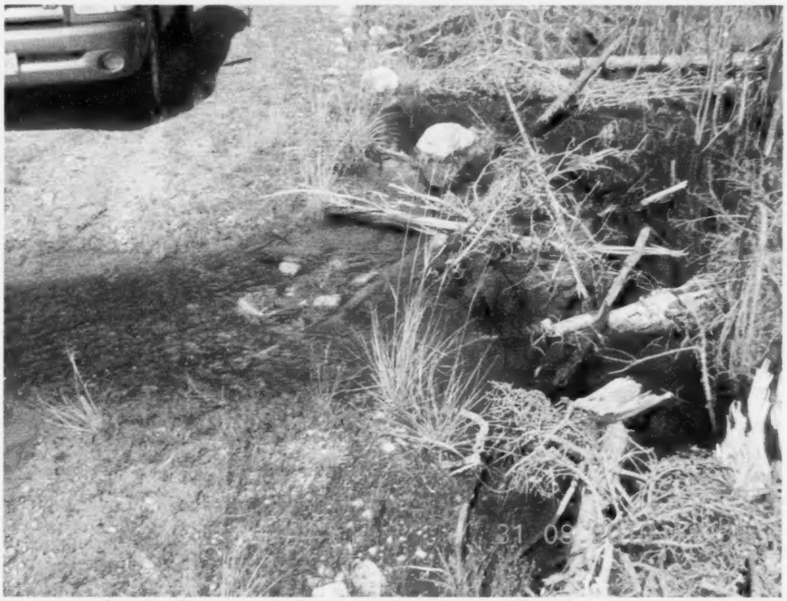
PRINCIPLE 4 – PLAN ASSESSMENT AND IMPLEMENTATION

Criterion: 4.7 Access
Road construction, various types of water crossings including crossing structures, road monitoring, maintenance, aggregates and any other access activities must be conducted in compliance with all laws and regulations, including the CFSA, and approved activities of the FMP, AWS.

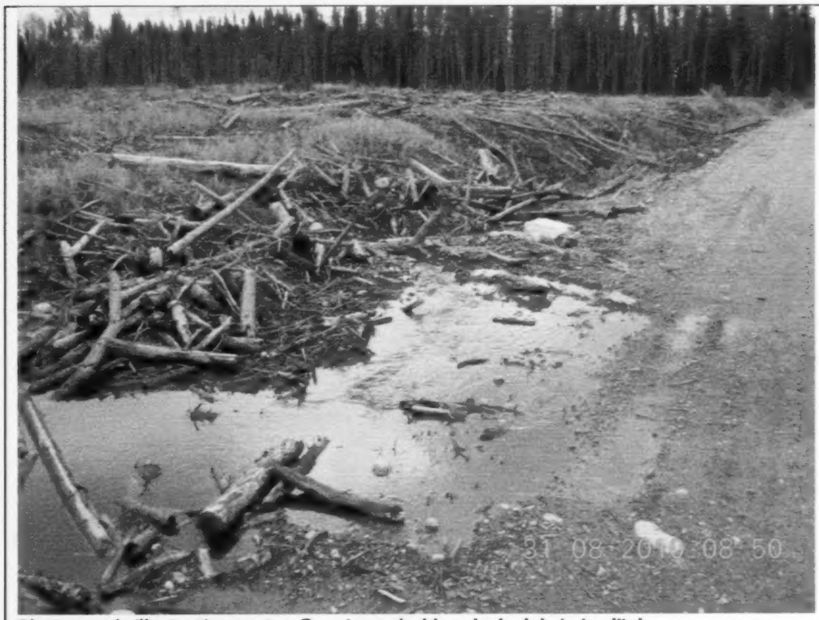
Procedure(s): 1. Review and assess in the field the implementation of approved access activities. Include the following

- select a representative sample of each type of access activity (road construction, various types of water crossings - winter, culverts, bridges, road maintenance, decommissioning) from primary, secondary/branch and tertiary/operational roads constructed during the five-year period of the audit
- conditions on construction including the approved water crossings structure, *Fisheries Act (R.S. 1985, c. F-14)* review, and conditions on crossings of other AOCs

Background Information and Summary of Evidence: During the field examinations, a number of examples were found impediments to water flow had been caused by improper installation or maintenance of drain pipes, use of tree stems as corduroy to encourage drainage through the road bed, and blocking of ditches by forestry operations. The following photographs present examples of these concerns.



Example of water flow impeded by use of corduroy rather than drain pipe.



Photograph illustrating water flow impeded by slash debris in ditch.

Discussion: A number of drainage problems were observed during the field audit. Impediments to water flow are common causes to road failures, flooding and mortality to flora.

Conclusion: Water flow must not be impeded by road construction and forest harvesting activities.

Recommendation 7: The audit team recommends that RLFMCL ensure that water flow is not impeded by road construction and forest harvesting activities.

Independent Forest Audit – Record of Finding

Recommendation 8

PRINCIPLE 4 – PLAN ASSESSMENT AND IMPLEMENTATION

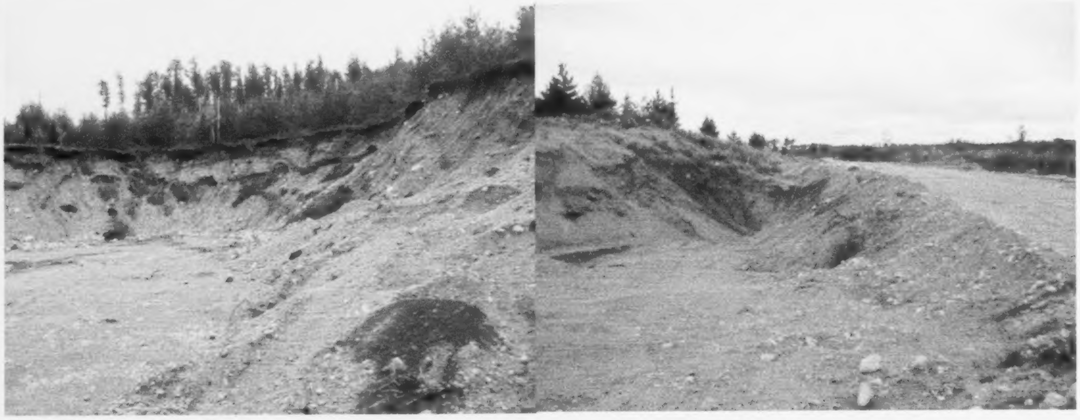
Criterion: 4.7 Access
Road construction, various types of water crossings including crossing structures, road monitoring, maintenance, aggregates and any other access activities must be conducted in compliance with all laws and regulations, including the CFSA, and approved activities of the FMP, AWS.

Procedure(s): 1. Review and assess in the field the implementation of approved access activities. Include the following

- select a representative sample of each type of access activity (road construction, various types of water crossings - winter, culverts, bridges, road maintenance, decommissioning) from primary, secondary/branch and tertiary/operational roads constructed during the five-year period of the audit; include category 14 and category 9 aggregate pits for new roads and existing roads
- determine whether the operations implemented were consistent with Aggregate Resources of Ontario Provincial Standards, category 9 aggregate pits

Background Information and Summary of Evidence: A number of aggregate pits were reviewed during the field portion of the audit; a number were found not to be in accordance with the requirements. Problems included: lack of sloping to angle of repose during periods of pit inactivity; working faces that exceeded height limitations; working faces too close to tree lines; and working close to roadways with regard to ditching and slope steepness. Some requirements of these standards were developed to ensure that pits are safe for workers during active periods and for the general public once the pit is no longer being operated.

The following photographs illustrate problems found with aggregate pits. The left photograph shows high working faces operating too close to the forest and not rehabilitated when inactive. The right photograph shows steep working faces not rehabilitated when inactive, without safety barriers when located immediately adjacent to a road.



Discussion: Conformance with the *Aggregate Resources Act (S.O. 1990, c. A.8)* is required for all aggregate pits in Ontario. Of particular concern is assurance that public safety hazards are addressed.

Conclusion: Efforts must be made to reduce safety risks by following pit rehabilitation protocol during periods when pits are inactive.

Recommendation 8: The audit team recommends that RLFMCL ensure that all aggregate pits are properly rehabilitated during periods of inactivity.

Independent Forest Audit – Record of Finding

Recommendation 9

PRINCIPLE 6 – MONITORING

Criterion: 6.5 Annual Report. To determine whether the annual reports have been prepared in accordance with the applicable FMPM. Assess whether these reports accurately reflect the implemented activities and whether they effectively assess progress and any associated implications related to the achievement of management objectives.

Procedure(s):

1. Examine the annual reports for the term of the audit and assess whether the text, tables and maps including digital information is accurate, complete and in accordance with the applicable requirements.
2. Examine whether the report assesses progress towards the objectives and targets identified in the FMP.
3. Examine the synopsis of the annual reports. Assess whether the observations and implications accurately reflect
    - the levels of forest operations that have been implemented to date, any implications on achievement of objectives/targets of the FMP and future levels of forest operations
    - a review of circumstances that affected or are expected to affect implementation of forest operations and achievement of objectives/targets in the FMP.

Background Information and Summary of Evidence: ARs included most required components and text but there were deficiencies and errors noted. It was evident that the reports were not carefully prepared or reviewed. Formalizing the review process may alleviate some of the issues noted.

Most significant was the lack of required discussions. For example, discussion regarding the reasons for non-compliances or actions taken to prevent future occurrence was absent. Also, there was no discourse regarding the lack of a planned spray program during the audit term and the AR synopses do not include implications on the achievement of objectives of the FMP. For example, the 2005-06 AR notes that "*no issues arose which will impact the sustainability of the approved forest management plan*". This is certainly not a discussion of implications of operations on plan objectives. Subsequent ARs showed little improvement in this regard – the 2006-07 AR notes that "*With lower than forecasted harvest levels, achieving objectives related to silviculture will also be affected. With only 49.3 % of the area harvested at the end of the 4th year it is anticipated that objectives related to the harvest and renewal will be much lower than forecasted".* The specific implications are again lacking.

Other issues with ARs:

- AR versions provided to audit team often missing required tables – particularly in more recent documents;
- Disagreement between text and relative table values. For example the 2005-2006 AR notes that MNR found a non-compliance during the term but there are none identified in Table AR13.

The 2007-2008 AR has a number of deficiencies as follows:

- Table AR-3 shows progress toward the completion of harvesting in clearcuts planned for the five-year period. Discrepancies were found between the figures presented in this table and those found in table FMP-18b of the 2003-2008 FMP.
  Table AR-3 provides a column entitled "Remarks on Progress"; none were provided for the discrepancies provided above.
- Although the AR text speaks to road maintenance and monitoring, no figures are mentioned and no figures are provided in the corresponding Table AR-10.
- AR Section 3.3 *Review of Forest Modelling Assumptions* would have benefitted considerably by introducing the discussion with the text of the assumption.
- AR Section 3.4 *Independent Forest Audit Action Plan* includes only the recommendations directed to RLFMCL while FMPM direction is "*The text will summarize recommendations from action plans for independent forest audits which have been prepared during the plan period to date. The text will include a discussion of progress on implementation of the action plans, and any implications for subsequent planning."*

Discussion: The FMPM clearly outlines the requirements of annual reporting. In addition, the Ontario Professional Foresters Association has clarified the accountability of members that certify annual reports through Practice Bulletin #4. The main points of the bulletin are:

- If the author signs the annual report knowing that information is either not accurate or has not been provided the author would be in violation of the Code of Ethics, guilty of professional misconduct and in violation of the Standards of Practice By-law.

- Where the information is not available for inclusion or is inaccurate the author must document this and provide these facts and should not certify the AR until accurate information has been provided or until MNR or the SFL provides a statement indicating that the required information cannot be made available. At this point the author would be able to certify the report noting the report is incomplete.
- The author should note the inability to confirm the accuracy or completeness of specific information provided by MNR from databases, etc. that cannot be personally checked by the author.

Conclusion: The FMPM requirements regarding AR content must be met. In addition, the OPFA direction should be remembered during certification of future ARs.

Recommendation 9: The audit team recommends that RLFMCL and MNR ensure that Annual Reports are complete and accurate.

APPENDIX 2 – MANAGEMENT OBJECTIVES TABLES

2003-2008 FMP Objectives

Objective	Assessment	Auditor Comments
A. Forest Diversity Objectives		
1. Age Class Structure To maintain long-term forest age-class structure and to protect sites from environmental degradation from forest operations.	Partially Met	Harvest under achievement limits fully meeting the first part of this objective. Forest operations well conducted with only a few localized examples of rutting found. Note: The second part of this objective is out of place here; more appropriate in #5.
2. Old Forest Structure and Composition To maintain a long-term, continuous supply of older forest.	Met	2008 FMP shows that all forest unit levels of old growth are above 3% for the next 100 yrs.
3. Landscape Pattern To ensure that forest management activities cause movement towards (or maintenance of) a more natural landscape pattern characteristic of Site Region 4S.	Met	2008 FMP shows movement towards. ARs suggest movement towards despite low harvest levels.
4. Wildlife Habitat Function To maintain forest function for long-term wildlife habitat in the Red Lake Forest.	Partially Met	Field examinations showed that AOC prescriptions were appropriate and implemented very well. Planned road rehabilitation in caribou blocks had not been completed. Recommendation 5 was provided to address this concern.
5. Soil Function To maintain the productivity of soil function.	Partially Met	AR identified that no compliance infractions were reported in Ecosites 12 and 13; field examinations support this statement. Several aggregate pits were found not to have been rehabilitated properly. This concern was addressed with Recommendation 8.
6. Fisheries and Water Quality Function To maintain water quality and protect fisheries habitat within watersheds where forest management activities occur.	Partially Met	AOCs to protect water quality and fisheries were maintained. Water crossing installations were found to be lacking care leading to Recommendations 6 and 7.

B. Social and Economic Matters Objectives		
7. Sustained Wood Supply To provide a predictable and continuous supply of wood products to the forest products industry from the Red Lake Forest.	Partially Met	Decreased treatment of slash and chipper debris piles to minimize loss of productive land is a concern. This concern was addressed with Recommendation 4. Planned harvest and allocation strategies could not be implemented due to poor market conditions.
8. Personal and Commercial Use To make available to local users incidental volumes of timber for such uses as fuelwood, building logs, furniture and other materials for personal or small scale commercial use.	Met	Table AR-4 shows that timber has been used for personal use (building and fuelwood). MNR staff also noted availability of incidental volumes.
9. Working with Aboriginal Peoples To work with local Aboriginal peoples, whose communities are situated in or adjacent to the Red Lake Forest, to identify and implement ways to maintain or enhance social and economic benefits to Aboriginal peoples who traditionally use the forest for subsistence and spiritual value.	Met	There are several examples to illustrate that this objective was met. Inclusion of a Pikangikum First Nation observer to the planning team for 2008-2018 FMP and meetings with trappers to ensure values protection during FMP development.
10. Tourism and Other Commercial Uses To recognize and respect the legitimacy and presence of other commercial businesses, and to contribute to the economic viability of resource based industries in or adjacent to the Red Lake Forest through the protection of associated values.	Met	RSA negotiations were held with several remote tourism operators and three RSAs were signed. AOCs were developed for other operators, all consistent with the associated guideline.
11. Road Accessed Recreation To provide road-based access, land use and recreational opportunities through road maintenance and development to access areas planned for harvest within the plan period.	Met	Provincial road funding assisted in meeting this objective through the construction of the Five Lakes Road extension and maintenance and upgrading of other primary and secondary roads.
12. Ownership and Other Land Use Values To conduct forest management activities in a manner that protects private land, parks and other land ownerships or values from encroachment caused by planned activities.	Met	AOCs developed and implemented to protect known values. No related non-compliances found in AR tables. Field examination supported these findings.
13. Cultural Heritage Values To protect identified/registered archeological and cultural heritage sites from conditions that will increase rates of deterioration, while minimizing fibre loss and archeological mitigation costs.	Met	AOCs for "Culture and Heritage High Potential Areas" and "Culture and Heritage Known Sites" developed and implemented during the term of the 2003-2008 FMP.
C. Provision of Forest Cover Objectives		

In this plan, the planning team agreed to group all management objectives relating to the provision of forest cover for any natural or environmental function in the previous (A) forest diversity objectives section.	N/A	See objectives 1-6.
Objectives relating to the provision of forest cover for social or economic benefits are included in the previous (B) social and economic objectives section.	N/A	See objectives 7-13.
D. Silvicultural Objective		
To implement planned levels of harvest, renewal and maintenance contained in this forest management plan to aid in the achievement of the thirteen specific management objectives stated under (A) forest diversity and (B) social and economic objectives section (listed above).	Partially Met	Actual harvest levels were 56% of the planned harvest levels (4,187 ha of 7,460). Renewal levels exceeded those in the plan as additional backlog was completed. Under achievement of planned harvest levels influences meeting of many objectives.

2008-2018 FMP Objectives

Objective	Auditor Comments
Objective 1, **Forest Landscape Pattern:** To ensure that forest management activities cause movement towards (or maintenance of) a more natural landscape pattern characteristic of Site 14 Region 4S.	Planned harvest would meet objective; however, actual annual harvest levels are low thereby limiting the ability to meet this objective.
Objective 2, **Forest Composition and Age Class Structure:** To maintain or move towards a natural range of forest composition and age classes which includes old growth forest.	FMP states "*...retention of old growth forest at the levels present at the start of this plan would require significant trade-offs in socio-economic benefits from the forest associated with timber harvesting.*" Plan does not permit this objective to be met.
Objective 3, **Wildlife Habitat:** To maintain forest function for wildlife habitat in the Red Lake Forest.	FMP states "*...habitat for selected wildlife species would generally decrease over time since the majority of species selected for this plan preferred mature conifer habitat which is in limited supply on the Red Lake Forest over the next 50 years.*" Plan does not permit this objective to be met.
Objective 4, **Road Access:** To develop road use strategies that (a) maintain or decrease road density within the caribou mosaic blocks (A-E) to complement caribou habitat management objectives, and (b) maintain or increase road density in the remainder of the Red Lake Forest to support the needs of commercial and non-commercial users.	Strategies documented in FMP. Field observations found road rehabilitation strategy in Caribou Blocks was not being implemented. Recommendation 5 was provided to address this concern. Provincial roads funding was used to maintain primary and branch roads for public use.
Objective 5, **Forest Values:** To implement forestry operations in a manner that protects values, in order to provide users with the opportunity to benefit from the forest.	Values protection efforts in FMP were found to be well done with the development of a suite of appropriate AOC prescriptions. Field examinations showed that AOC prescriptions were appropriate and well implemented.
Objective 6, **Forest Renewal:** To effectively regenerate harvest areas to Free Growing status.	Forest renewal efforts observed to be consistent with meeting this objective in the future.

Objective	Auditor Comments
Objective 7, **Protection of Natural Resources Values:** To implement forestry operations in a manner that protects natural resource features, land uses or values dependent on forest cover in order to provide users with the opportunity to benefit from the forest.	Indicator speaks to compliance with prescription with the measure being annual compliance inspection reporting summaries as assessed in Year 7 and 10 ARs. Field examinations showed that AOC prescriptions were implemented properly.
Objective 8, **Tourism and Other Commercial Values:** To recognize and respect the legitimacy of commercial tourism businesses, and to contribute to the economic viability of those businesses in or adjacent to the Red Lake Forest through the protection of associated values.	Efforts to meet this objective during the planning phase for the 2008-2018 FMP is well documented. These efforts corroborated through interviews. AOC prescriptions to protect tourism businesses values included in FMP.
Objective 9, **Trapping Values:** To recognize and respect the legitimacy of trapping (fur industry), and to contribute to the economic viability of that industry in or adjacent to the Red Lake Forest through the protection of associated values.	Efforts to meet this objective during the planning phase for the 2008-2018 FMP well documented. These efforts corroborated through interviews. AOC prescriptions to protect trapping values included in FMP.
Objective 11, **Wood Supply:** To provide a predictable and continuous supply of wood to the forest products industry from the Red Lake Forest.	Plan LTMD provides continuous and predictable wood supply. Industrial demand was predicted to be met for Term 1 but could not be met for Term 2 and 3.
Objective 12, **Soil Function, Water Quality and Fisheries Habitat:** To maintain productivity of soil function and to protect water quality and fisheries habitat where forest management activities occur in the Red Lake Forest.	Field observations found forest operations to have been well conducted with only a few localized examples of rutting found. AOC prescriptions well planned and implemented to protect water quality and fisheries habitat. Concerns with water crossings and cross drainages leading to Recommendations 6 and 7.
Objective 13, **Land Base Available for Timber Production:** Maintain the area of Managed, Crown Productive Forest available for timber production at plan start levels.	Site damage caused by operations was minimal. Concern over decreasing attention to loss of productive area to slash piles and chipper debris. Recommendation 4 provided to address this concern.
Objective 14, **Aboriginal Involvement:** To work with the adjacent Aboriginal communities of Pikangikum and Lac Seul as well as individual Aboriginal people who live off the reserve but continue to have traditional ties to the Red Lake Forest.	Considerable effort has been made to meet this objective. MNR providing substantial support and leadership in this effort. Métis people were not consulted in the development of the FMP. Recommendation 1 is provided to address this concern.
Objective 15, **Local Citizens Committee Involvement:** To have the Local Citizens Committee effectively participate in plan development.	LCC involvement in plan development found to be excellent.

APPENDIX 3 – COMPLIANCE WITH CONTRACTUAL OBLIGATIONS

The following table provides the conditions of SFL 542548 for the Red Lake Forest. Each condition is provided on a separate row with comments by the audit team to report on the degree of attainment of the condition.

Licence Condition	Licence Holder Performance
Payment of Forestry Futures and Ontario Crown charges	Not Met. RLFMCL has no amount owing. However, the account is separated into sub-accounts by Class 'B' shareholder/harvesting contractor. Both Crown charges and Forestry Futures Trust charges were not paid in full.
Wood supply commitments, MOAs, sharing arrangements, special conditions	Met. Appendix E of the SFL provides four commitments. Two of the commitments are to facilities that have terminated operations. Commitments to the remaining two were met although little volume was utilized during the period.
Preparation of FMP, AWS and reports; abiding by the FMP, and all other requirements of the FMPM and CFSA	Partially Met. FMPs and AWSs generally prepared as required. ARs, including Year Ten enhanced portions, were found in need of improvements. Recommendation 9 is provided to address this concern.
Conduct inventories, surveys, tests and studies; provision and collection of information in accordance with FIM	Met. FTG surveys were completed on more than 7,000 ha, meeting planned targets.
Wasteful practices not to be committed	Met. Utilization was generally noted to be very good although stray bundles were noted at a few sites and incidental merchantable pieces were noted in unpiled slash piles.
Natural disturbance and salvage SFL conditions must be followed	Met. Salvage operations occurred in 2005-2006 to complete a large blowdown area. Utilization was noted to be very good. Renewal prescriptions and reporting were completed as required. Application and approval completed before the audit term.
Protection of the licence area from pest damage, participation in pest control programs	Met. RLFMC actively supported and participated in the pest management programs put in place by MNR in response to a budworm outbreak within the audit period.
Withdrawals from licence area	Met. No withdrawals have occurred during the period.
Periodic review of licensee's performance • Audit action plan and status report	Met. In response to the 2005 IFA, an audit action plan was prepared, approved and implemented and a status report was prepared as per SFL requirement. Four of the 18 recommendations from this audit were directed at RLFMCL. The audit team considers the requirements of these recommendations to have been fulfilled.
Payment of forest renewal charges to Forest Renewal Trust (FRT)	Met. Payments to the FRT were made although minimum balance was not maintained once.
Forest Renewal Trust eligible silviculture work	Met. The company maintained accurate records of invoiced silvicultural work. Records were found to be consistent with actual conditions viewed in the field.
Forest Renewal Trust forest renewal charge analysis	Met. RLFMC completed a renewal charge analysis in the development of the 2008 FMP (Pg 71-78 Supplemental Document #3). The analysis is sufficient to meet the FMPM and SFL requirements but could be enhanced with more details in future plans and reports.
Forest Renewal Trust account minimum balance	Not Met. The minimum balance for the forest renewal trust account had not been maintained by overlapping licencee(s). Payment was made in full in July 2010.
Silviculture standards and assessment program	Met. RLFMC maintains a silviculture standards

Licence Condition	Licence Holder Performance
	assessment program that fulfills the contractual obligations associated with the SFL.
Aboriginal opportunities	Met. There are no Aboriginal communities located on the Red Lake Forest. Pikangikum First Nations had an observer for the 2008-2018 FMP planning team. MNR Red Lake led the effort to work with Aboriginal communities.
Preparation of compliance plan	Met. The company produced a strategic Compliance Plan for the 2003-2008 and 2008-2018 FMPs. The 10-year Compliance Plan was well written and met all requirements including a description of compliance goals, priorities and strategies as well as reporting responsibilities. Annual compliance plans were also produced by the company for each AWS during the audit term; each notes specific reporting to be completed by block and identify high importance operations and potential issues.
Internal compliance prevention/education program	Met. RLFMC delivered an effective prevention/education program during the audit term and staff are well trained. The program included annual updates with the contractors and training that focused on new regulations and requirements. In addition, pre-work meetings are conducted between RLFMC and contracting staff that include start up instructions and detailed maps for road building, harvesting, silviculture, etc. This documentation is well organized by RLFMC through use of block numbers.
Compliance inspections and reporting; compliance with compliance plan	Partially met. Company compliance reports viewed were timely and included required text regarding observations. Concerns were noted related to timing of inspections after snowfall; a suggestion is made to review operations in snow-free conditions or utilize aerial photography to supplement field inspections.
SFL forestry operations on mining claims	Met. Review of records at MNR office.

APPENDIX 4 – AUDIT PROCESS

The Independent Forest Audit Process and Protocol (IFAPP) was developed by MNR to provide a comprehensive and consistent method of evaluating forest management activities on Crown land. The IFAPP (2010) states that the purpose of an Independent Forest Audit is to:

a) assess to what extent forest management planning activities comply with the Forest Management Planning Manual (FMPM) and the *Crown Forest Sustainability Act (S.O. 1994, c. 25)* (CFSA);
b) assess to what extent forest management activities comply with the CFSA and with the forest management plans, the manuals approved under the CFSA and the applicable guides;
c) assess the effectiveness of forest management activities in meeting the forest management objectives set out in the forest management plan, as measured in relation to the criteria established for the audit;
d) compare the forest management activities carried out with those that were planned;
e) assess the effectiveness of any action plans implemented to remedy shortcomings revealed by a previous IFA;
f) review and assess a licensee's compliance with the terms and conditions of the forest resource licence.

The IFAPP is based on eight guiding principles and contains 148 procedures, 125 of which are applicable to the Red Lake Forest. The audit procedure serves as a framework to provide a structured approach to evaluating whether or not forest management activities meet the requirements governing forestry practices on Crown land in Ontario. The guiding principles are:

- Commitment
- Public Consultation and Aboriginal Involvement
- Forest Management Planning
- Plan Assessment and Implementation
- System Support
- Monitoring
- Achievement of Management Objectives and Forest Sustainability
- Contractual Obligations

MNR categorized most of the IFA procedures based on complexity and their potential impact on forest sustainability. The IFAPP directs the audit team to assess through sampling, per audit principle and associated criteria, the three categories of procedures as follows:

- Administrative procedures – low risk: 20-30% of low risk procedures to be assessed
- Administrative but also having a bearing on sustainable forest management – medium risk: 50-75% of medium risk procedures to be assessed
- Procedures directly related to sustainable forest management – high risk: 100% of high risk procedures to be assessed

Table 3 summarizes the number of procedures selected by the audit team for audit based on the direction provided by the IFAPP.

Table 3. Summary of the number of procedures selected by the audit team for the independent forest audit of the Red Lake Forest based on direction provided in the IFAPP.

Principle	**Procedures Audited by Risk Category**							**Comments**
	Low Risk			**Medium Risk**			**High Risk**	
	Applicable (#)	**Selected (#)**	**% Audited**	**Applicable (#)**	**Selected (#)**	**% Audited**	**Audited (#) (100% Audited)**	
1. Commitment	0	-	0	2	1	50	1	Procedure *not* audited: 1.1.1
2. Public Consultation & Aboriginal Involvement	0	-	0	6	5	83	2	Procedure *not* audited: 2.6.1
3. Forest Management Planning	7	4	57	11	8	73	41	Procedures *not* audited: 3.2.1.1, 3.2.1.2, 3.2.2.3, 3.5.1.3, 3.6.2.2, 3.10.2.1
4. Plan Assessment & Implementation	1	1	100	1	0	0	9	Procedure *not* audited: 4.3.2
5. System Support	0	-	0	1	1	100	1	
6. Monitoring	0	-	0	7	4	57	11	Procedures *not* audited: 6.4.1, 6.4.2, 6.4.3
7. Achievement of Management Objectives & Forest Sustainability	0	-	0	2	1	50	15	Procedure *not* audited: 7.1.7
8. Contractual Obligations	0	-	0	3	2	66	7	Procedure *not* audited: 8.1.8.1
Totals	8	5	63	33	22	67	87	

The audit process for the Red Lake Forest IFA consisted of seven components:

1. Audit Plan: KBM prepared an audit plan that described the schedule of audit activities, audit team members and their qualifications, audit participants, and auditing methods. The audit plan was submitted to RLFMCL, MNR, the Forestry Futures Trust Committee (FFTC), and the Chair of the Red Lake District Resource Management Advisory Committee (LCC).

2. Public Consultation: Through individual letters mailed in early May, 2010, KBM advised all current members of the Red Lake District Resource Management Advisory Committee that an audit would be taking place and invited their input.

3. Newspaper advertisements were published in two area newspapers prior to the pre-audit meeting advising the public of the upcoming audit: the *Northern Sun News* and the *Wawatay News*. As per the requirements of the IFAPP, the notices identified the purpose of the audit and invited the public to submit comments to the LCC Chair or directly to KBM.

   KBM also prepared a one-page survey to solicit public input to the audit process. The survey, in addition to a general letter informing contacts of the audit, was mailed to all businesses and organizations, and a representative sample of one-third of the individuals listed in the Forest Management Plan (FMP) mailing list (as provided by MNR Red Lake District). This list includes tourist operators, private land owners, trappers, baitfish licence holders, bear management area holders, local municipalities and government agencies, independent loggers, logging contractors, shareholders and other special interest groups. The survey was also available to the general public on the KBM website (www.kbm.on.ca).

4. Aboriginal Engagement: MNR Red Lake District provided KBM with contact information for each Aboriginal Community within or adjacent to the Red Lake Forest, and/or who participate in activities on the Forest. A letter was sent out to each of the Aboriginal communities on the contact list inviting them to participate in the IFA of the Red Lake Forest. The letter asked for their input and encouraged them to contact KBM if they wish to participate in the audit or if they require more information before making a decision. KBM also offered to arrange in-person meetings with each of these Aboriginal Communities. Follow up phone calls were made to these communities seeking their participation on the audit.

   Contact was made with the MNR Liaison Officer to determine further actions to engage these communities. Contact names and telephone numbers were provided and follow-up telephone calls were made to each of these people to engage participation in this audit.

5. Field Site Selection: The audit team conducted a preliminary site selection prior to the opening meeting. Annual Work Schedules and Annual Reports were used to ascertain the amount and type of forest operations carried out on the Forest during the audit period. A stratified random sample of sites was then selected to ensure that selected sites were representative of a cross section of all activities conducted on the Forest during the audit period. The auditees were informed of the site selection for the field visit.

6. Pre-audit Document Review: Prior to the six-day site visit, the audit team reviewed documents provided by RLFMCL and MNR, including the:
   a. 2003-2008 and 2008-2018 FMPs for the Red Lake Forest
   b. Annual Work Schedules and Annual Reports associated with the above FMPs
   c. Comparison and Trend Analysis of Planned versus Actual Forest Operations Report (TAR)
   d. Red Lake Forest Independent Forest Audit 2000-2005 Report
   e. Red Lake Forest 2000-2005 Independent Forest Audit Action Plan and the Red Lake Forest 2000-2005 Independent Forest Audit Action Plan Status Report.

   The audit team also developed a questionnaire that was circulated to planning team members and other RLFMCL and MNR District staff prior to the on-site audit to assess their perceptions regarding the effectiveness of specific components of forest management on the Red Lake Forest. The results of the survey provided additional focus to IFAPP prescribed interview procedures that occurred on site.

7. On-Site Audit: The objectives of the field site visits were to confirm that activities were conducted according to plan, that they conformed to provincial laws, regulations, and guidelines, and that they were effective. The audit began on Sunday, August 29 with field auditors spending one day with a representative of RLFMCL examining field stops with a helicopter. The opening meeting was held the next morning in Red Lake on August 30, 2010. During the on-site visit portion of this audit, the audit team conducted interviews with staff of RLFMCL and MNR, and with LCC members. The audit team examined documents, records and maps at the MNR offices in Red Lake, and spent two days in the field viewing selected sites with representatives of RLFMCL, MNR District, the LCC, MNR Forest Management Branch, and a representative of the Forestry Futures Trust Committee.

   Several stops provided the opportunity to audit multiple activities such as harvesting, renewal, values protection, etc. KBM committed to, and surpassed, a minimum of a 10% sampling of key activities and operations conducted on the Forest during the audit period. The 10% minimum sampling intensity is prescribed by the 2010 IFAPP. Table 4 presents the actual sampling intensity for each forestry activity examined on the ground as part of the field site visits. Due to access and time restraints, the audit team relied on a helicopter to reach many of the selected field sites. The helicopter also provided opportunities for overviews of the subject areas, enabling overall examination of target blocks.

The closing meeting was held in Red Lake on September 3, 2010. This meeting provided a forum for the audit team to present and discuss preliminary audit findings with RLFMCL, MNR and members of the LCC.

Table 4. Audit sampling intensity for the Red Lake Forest.

Activity	Total Area/Number[1] (2005-2010)	Area/Number Sampled	Percent Sampled
Harvest (ha)	2,950	564	19%
Renewal & Maintenance (ha)	5,750	876	15%
Jack Pine Budworm spray (ha)	2,937	482	16%
Free–to-Grow (ha)	8,984	1,454	16%
Area of Concern Categories[2] (#)	11	4	36%
Road Construction (km)	10.7	7.0	65%
Road Maintenance (km)	944.8	245.7	26%
Specified Procedures Review[3] (ha)	1,448	539	37%

[1] The amount of area for the 2009-2010 year was provided by RLFMCL; no harvesting took place; 900 ha of tree planting occurred.

[2] Area of Concern categories refer to the different types of AOCs present on the Forest. Examples include riparian reserves, cold water fisheries, eagle nests, etc. More than one AOC was associated with some sites selected for review of harvest and renewal operations.

[3] The Specified Procedures Review involved the verification of maps, records, and fieldwork associated with Forest Renewal Trust Account expenditures for 2008-2009.

8. Audit Report: The audit results are presented in this report following a brief description of the audit process and the forest licence area under review. Within the report, the audit team has made recommendations to address instances of a non-conformance to a law and/or policy, or an identified lack of effectiveness in forest management activities.

   Recommendations from this audit must be addressed in an action plan developed by RLFMCL and MNR Red Lake District, with input and review by MNR Regional and Forest Management Branch representatives.

   Suggestions are no longer highlighted in audit reports, nor will they be addressed in action plans. Any suggestions of the audit team have been incorporated within the regular text of this report.

Public Response

Only one response to the public notices and survey was received from the public. The response focused on increasing and maintaining public road access on the forest. No comment was required from the audit team.

Local Citizens Committee

Letters were mailed to all current members of the LCC to notify them of the audit and invite their input. One LCC member attended the audit opening meeting, participated in one field day and attended the audit closing meeting. Several LCC members were interviewed. Part of the interview included whether in their view the LCC has achieved its purpose, and if there are areas where the LCC may be improved.

Summary of LCC comments:

LCC members generally felt that the committee was effective in meeting its roles and responsibilities. Many members had long history of involvement in the committee. Spoke to the good working relationship between MNR and RLFMCL.

Aboriginal Communities

A letter was mailed to each of the Aboriginal communities on the contact list inviting them to participate in the audit. The letter explained that their input is welcomed and encouraged them to contact KBM if they wish to participate in the audit or if they require more information before making a decision. KBM did not receive any responses to the letter.

Overlapping Licensees, Contractors and Commitment Holders

All businesses listed in the FMP mailing list provided by Red Lake MNR were sent the one-page KBM survey and letter soliciting input to the audit. No comments were received from any of these groups. Commitment holders were not contacted since the SFL received for this audit was six years old and the commitment holders were largely no longer operational. Requests to the MNDMF by the audit for updates about the status of the licence were not responded to.

SFL Holder

Interviews were held with the General Manager of RLFMCL, and a member of its Board of Directors. The author of the 2008-2018 FMP and former General Manager of RLFMCL was no longer with the company or available for the audit. The member of the Board of Directors accompanied members of the audit team on the helicopter field portion of the field audit. The General Manager accompanied the audit team on the truck field day. The auditor team appreciates RLFMCL's efforts in providing the auditors with information in an organized manner, particularly the field books which allowed informed assessments while in the field.

Ministry of Natural Resources

Interviews were held with the District Manager, Area Supervisor, Area Forester, and Area Technician. MNR District personnel also accompanied the audit team in the field for one day including the Area Forester, the Area Biologist, and Area Technician. The audit opening and closing meetings were attended by MNR District personnel.

One MNR Northwest Region representative attended one field day and participated in the pre-audit meeting and closing meeting.

A representative from MNR Forest Management Branch attended one field day and participated in the audit opening and closing meetings via teleconference.

One representative from the Forestry Futures Trust Committee participated in the opening and closing meetings via teleconference and attended one field day.

APPENDIX 5 – LIST OF ACRONYMS

AOC	Area Of Concern
AR	Annual Report
AWS	Annual Work Schedule
CFSA	Crown Forest Sustainability Act
FFTC	Forestry Futures Trust Committee
FFTF	Forestry Futures Trust Fund
FMP	Forest Management Plan
FMPM	Forest Management Planning Manual
FOIP	Forest Operations Information Program
FOIR	Forest Operations Inspections Report
FOP	Forest Operations Prescription
FRI	Forest Resource Inventory
FRL	Forest Resource Licence
FRT	Forest Renewal Trust
FTG	Free-To-Grow
GIS	Geographic Information System
IEA	Individual Environmental Assessment
IFA	Independent Forest Audit
IFAPP	Independent Forest Audit Process and Protocol
LCC	Local Citizens Committee
LTMD	Long Term Management Direction
MNDMF	Ministry of Northern Development, Mines and Forestry
MNR	Ministry of Natural Resources
NBI	Northern Boreal Initiative
NDPEG	Natural Disturbance Pattern Emulation Guidelines
NSR	Not Sufficiently or Satisfactorily Restocked or Regenerated
OLL	Ontario Living Legacy
RLFMCL	Red Lake Forest Management Company Limited
RPF	Registered Professional Forester
RSA	Resource Stewardship Agreement
SAP	Supplemental Aerial Photography
SFL	Sustainable Forest Licence
SFMM	Sustainable Forest Management Model
SGR	Silviculture Ground Rule
SMA	Selected Management Alternative
SOP	Standard Operating Procedure
TAR	Comparison and Trend Analysis of Planned vs. Actual Forest Operations Report

APPENDIX 6 – AUDIT TEAM MEMBERS AND QUALIFICATIONS

Name/Role	Responsibilities	Credentials
Mr. Peter Higgelke • Lead Auditor • Wildlife/Ecology • Aboriginal Involvement	Overall audit coordination and oversight of activities of the audit team. Review of management objectives, contractual obligations, and forest sustainability. Assess AOC documentation and practices and aspects of forest management related to environmental protection and wildlife practices. Assess aboriginal involvement.	R.P.F., M.Sc.F.; 30 years combined forestry experience in Ontario, Quebec, and Germany; experience as practicing consultant; completed ISO 14001 EMS Lead Auditor training; Lead Auditor on 4 IFAs, Wildlife Auditor on one Forest Management Agreement Review and nine IFAs; Harvest Auditor on six IFAs.
Mr. Laird Van Damme • Silviculture • Public Consultation	Assess silvicultural planning and operations; assist in assessment of achievement of management objectives and forest sustainability. Assess public consultation in forest management planning.	R.P.F., M.Sc.F.; 24 years experience as a practising forester, educator and consultant; primary areas of practice are silviculture, forest management and forest research; completed ISO 14001 EMS Lead Auditor training; worked on 18 previous IFAs as either Lead, Harvest or Planning Auditor.
Mr. Brad Chaulk • Harvest • Forest Management Planning • Compliance	Assess access and harvest planning and implementation; assist in assessment of achievement of management objectives and forest sustainability. Assess forest management planning requirements. Assess forest compliance planning and implementation.	R.P.F., H.B.Sc.F.; 18 years of forestry experience including forest management and operational planning; auditor on 15 previous IFAs.
Mr. Keith Hautala • Modeling	Review SFMM strategic planning.	M.Sc.F.; 12 years of forestry experience in Ontario; Modeling Auditor on 11 previous IFAs; Secretariat on three previous IFAs.

APPENDIX 7 – TRENDS ANALYSIS

Trend Analysis – **Title and Certification Page**

TREND ANALYSIS REPORT
for the
RED LAKE FOREST
Plan Period 2003 to 2008
Red Lake District, Northwest Region
Red Lake Forest Management Company Ltd.

I hereby certify that this annual report is complete and accurate, and has been prepared to the best of my professional skill and judgment, in accordance with the requirements of the Forest Management Planning Manual and the Forest Information Manual.

REGISTERED PROFESSIONAL FORESTER
2008
J. LANE
ONTARIO

[R.P.F. Seal]

Janet Lane
RPF

Nov 16/2010
[date]

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Appendix 1

RPFO Tables (2007/08 AR RPFO-13 to 18)

1.0 INTRODUCTION

The Red Lake Forest is managed by Red Lake Forest Management Company Ltd. (RLFMCL) under Sustainable Forest Licence (SFL) #542548. The Red Lake Forest is located in the Red Lake District, in the Northwest Region. This Trend Analysis covers activities that Red Lake Forest Management Company Ltd. undertook during the 2003-2008 years which is considered to be the current plan; and has been prepared using direction from the following:

> The Forest Management Planning Manual for Ontario's Crown Forests (2009) and (2004);

The text and tables included in this report suffice the requirements for the Year Ten Annual Report, and follow the correct format as outlined in the FMPM.

2.0 IMPLEMENTATION OF FOREST OPERATIONS

Harvest Area

Actual harvest has never exceeded the planned harvest level in any plan. The actual harvest area has, over the past 3 plans, been 10%- 41% lower than the planned harvest. Actual to planned levels were closest in the 1991/96 plan term where they were within 10%.

During the current plan 2003-2008 the actual harvest was 59% of the planned harvest level. The forest industry experienced difficult economics times affecting actual harvest levels compared to the available harvest area. Many shareholders did not use their equipment for several years during this period.

All areas were harvested under the clearcut silvicultural system. One bridging block (355) was harvested in spring of 2008.

The planned annual harvest area has dropped from 2078 hectares in the 1991 plan to 1417 hectares in the current 2003 FMP. The AHA will be stable over the medium term and rise slightly in the longer term. The harvest area available but not harvested in the 2003 FMP is now available to be harvested in the 2008 FMP. While wood fibre does store well when not harvested, other objectives such as creating the Caribou mosaics are also delayed.

This trend indicates that the objective to provide a predictable, continuous wood supply has been met.

Harvest Volume

Actual harvest volume has never exceeded the planned harvest level in any plan. The actual harvest volume has also been 10 – 26% lower than planned harvest volume. This indicates that either the yield curves were conservative or the higher yielding sites were harvested. The planned harvest volumes have dropped over the past 3 plans and the current plan volume has levelled out.

The projected medium and long term modelling indicates that the volumes will increase. This trend indicates that the objective to provide a predictable, continuous wood supply has been met.

Renewal and Maintenance

The reduced actual harvest area is reflected in the reduction in actual renewal operations compared to planned renewal operations. There is a trend to plant rather than seed or leave for natural regeneration in the current plan. Planting has increased from an average of 475 hectares a year from 1991-1997 to over 920 hectares per year for years 1998 – 2008.

The amount left for natural regeneration is much less than predicted. Looking back on past annual reports they indicate the reason for this is that those forest units that would be left for natural regeneration have not been harvested. The hardwood forest units have not been harvested to the level that was predicted and the lowland black spruce when harvested in conjunction with upland sites have been planted.

The actual maintenance of stands in past plans has fallen short of the planned amount. However the current plan actual thinning program surpassed the planned program by 21%. The vegetation control program has fallen short and it is cited in the 2005 Trend Analysis page 4 as the result of prompt planting.

The renewal and maintenance is consistent with the current plan and should aid in the achievement of objectives related to the forest diversity and economic objectives.

Harvest and Regeneration

AR-10 Summary of Harvest and Regeneration Trends could not be completed for a number of reasons including changing of forest units from plan to plan and past reporting not tracking original forest units. The information in the table indicates that in the 1998-2003 and the 2003-2008 plans more area was surveyed than harvested. A large amount of area that had been naturally disturbed and not salvaged was surveyed in the 1998-2003 plan term. Regenerated area was 100% of the surveyed area in the 2003-2008 term and 69% of the areas surveyed in the 1998-2003 term.

The harvest and regeneration is consistent with the current plan and should aid in the achievement of objectives related to the forest diversity and economic objectives.

Forest Condition

The forest unit definitions have changed between plans and this makes the forest unit to forest unit changes difficult to compare in AR-11. Also FMP – 4 in the 2008 FMP included 10,000 hectares of unavailable areas. However, this aside the target for all forest units / age class in the 2003 FMP were met or exceeded when compared to the 2008 FMP table FMP-7. Area classed as over 100 years of age has not changed substantially through out the plan and old growth targets of >3% was met for all forest units in the 2008 FMP.

The first three table in AR-14 illustrates that the forest diversity and structure has not substantially changed and only the HwdMx forest units is higher than the BNV set in 2003. This is likely due to the changes in forest unit definitions. The forest diversity objective was met.

Habitat for Species at Risk and Selected Wildlife Species

AR-12 summarizes the species at risk and selected wildlife species habitat abundance at the plan start of the 1998-2003 FMP and the 2003-2008 FMP as well as the projections in the current plan and the actual at plan end for the species that were modelled for the 2008 FMP.

The only species at risk species habitat that has been modelled and assessed over time is the Woodland Caribou. The summer woodland caribou habitat appears to decrease between the 1998 FMP and 2003 FMP starts, this may be real or just a change in the conditions thought to define Caribou summer habitat as there has not been a substantial change in forest composition or disturbance from plan to plan. The caribou winter habitat seems to have gone up slightly from 1998 FMP to the start of the 2003 FMP but dropped significantly in the 2008 FMP plan start. Again this could be due to the habitat characteristics changing.

Only great grey owl, pileated woodpecker, marten and moose habitat can be tracked through the 1998 FMP, 2003 FMP and 2008 FMP start points. Moose abundance of habitat was significantly different from the 1998 FMP to the start of the 2003 FMP. The moose habitat, both foraging and winter, seem to be changing as projected in the 2003 FMP modelling exercise. Great grey owl habitat and pileated woodpecker has been reduced from plan to plan. Marten habitat drastically reduced from 1998 FMP to the start of the 2003 but increased more than anticipated during the 2003 FMP term.

The objective in the 2003 FMP was to maintain the habitat with in 20% of the natural benchmark scenario.

Species	Benchmark Hectares
Marten –	33,600
Great Grey Owl –	32,700
Pileated Woodpecker	2,900
Woodland Caribou	45,200 foraging
	6,100 winter
Moose	38,700 foraging
	55,600 winter

AR-14 summarizes the 2008 habitat for the forest and the pileated woodpecker is the only habitat to fall below the 2003 benchmark at 1,414 hectares. The habitat matrix of preferred habitat changed dramatically between 2003 and 2008 habitat modelling. The hardwood stands that the woodpeckers prefer did not decline significantly between plans as markets were not available to harvest the allowable cut in these forest units. Retention targets were met in all areas harvested and this should lead to increased habitat if models were to account for harvested stands with retention. Therefore this modelled shortfall in habitat is a result of habitat matrix change and the forest unit definition changes.

Monitoring and Assessment

Monitoring of silviculture success is consistent with the planned program. An assessment of the monitoring results has been completed in the annual reports.

Forest operations inspections were done by the overlapping licensee and the MNR. During the plan period there were three non compliances related to NDPE stand level snag retention, rutting and crossing an intermittent stream during harvest.

Roads and water crossings were monitored annually. Water crossings have been replaced as required. Beaver blockages have been removed as necessary. No issues arose.

The sections 3.0 – 7.0 are taken from the 2007/08 AR Summary of Year 10 Tables (RPFO 13 – RPFO-18).

3.0 ANALYSIS OF FOREST DISTURBANCE

Table 1. An evaluation of the original disturbance size analysis.

Table 1 SUMMARY OF FREQUENCY DISTRIBUTION OF FOREST DISTURBANCES BY SIZE CLASS

Size Class (ha)	Frequency of Forest Disturbances						
	Number			Percent			
	Plan Start	Projected Plan End	Actual To Date	Plan Start	Projected Plan End	Actual To Date	Template
10-130	n/a	196	248	83%	78%	79%	40%
131-260	n/a	18	17	6%	7%	5%	13%
261-520	n/a	5	14	3%	2%	4%	13%
520-1040	n/a	16	15	2%	7%	5%	13%
1040-2500	n/a	9	13	3%	4%	4%	12%
2501-5000	n/a	3	3	1%	1%	1%	5%
5001 - 10000	n/a	2	2	1%	1%	1%	4%
> 10000	n/a	3	0	1%	1%	0%	0%
Total		252	312				

Note 1: the numbers for plan start are not available, as only percent were reported in the FMP2003

Note 2: the numbers in the projected plan end were calculated using the percent of the total of 252 disturbances over 10 ha in size.

Note 3: Size class as reported in 2003 FMP

Note 4: Actual to date based on actual NDPE analysis with actual harvest for the 5 yr term

Due to unforeseen market conditions over the last 2-3 yrs of the plan term, where harvest was almost non existent many harvest blocks were left unharvested. When comparing the Projected Plan End disturbance frequency to the Actual to Date (New Analysis) disturbance frequency relative to the template disturbance frequency, one can conclude that the disturbance frequency is still moving towards the template. Although the numbers projected were not attained due to lower harvest levels, several of the disturbance size classes have moved towards the template. Disturbances in the 10-130 ha size class, was 83% at plan start and has moved to 79%, close to the projected of 78% and moving towards the template at 40%. The other size class which has shown good movement is the 520-1040 which moved from 2% at plan start to 5% at plan end, lower than the projected 7% but still moving towards the template at 13%. The size class >10,000 went from 1% to 0% same as the template. Of the 8 disturbance size classes 7 have moved towards the template or stayed the same.

It is anticipated the Red Lake Forest will continue to move towards the natural template in the 2008 plan, as long as market conditions improve in the near future.

4.0 ANALYSIS OF RENEWAL AND TENDING ACTIVITIES

The annual harvest area on Red Lake Forest has not been fully harvested, which is evident in AR-7, and this has lead to less renewal being undertaken than predicted AR-9. The expenditures are also reduced as is the expected regeneration assessments.

During the current plan, regeneration to-date for Natural Regeneration is much lower than planned as identified in AR-9. Only 6% of the forecast area to be left for natural was achieved. This is due to the fact that only 32.5% the SbLow FU was harvested and upon site inspections often it is decided to plant some of these SbLow areas. The other contributing factor is that only 57% of the PoAll FU was harvested, which normally is scheduled for natural regeneration however in this case block 351 and 391 were harvested but not reported for natural in the following year of harvest since it was decided to see what the natural regeneration would look like first. The area harvested at the time had a significant portion of softwood, more than identified in the inventory. As it turns out some of this area in these blocks was planted in 2008 and the remainder will be reported as left for natural.

The Artificial regeneration to-date is 71% of projected. This includes the planting which is at 108% and the seeding at 34% of the planned. As mentioned earlier planting of SbLow has contributed to the planting numbers, providing higher than projected numbers. The delay in planting relative to the harvest will impact the beginning of the 2008 FMP. Seeding is lower than projected because the seeding of some blocks has been delayed until such time as a larger amount of hectares were available for a economical seeding program, which is scheduled to take place in the 2008 fiscal year. Because of the size of the SFL, seeding area must be accumulated over several years to provide for an economical seeding program. With the decrease in harvest area over the last several years of the plan, a seeding program was not feasible until March 2009.

Site prep to-date is at 57% of planned. This corresponds with area harvested which is at 59% of planned. This could also be the result of site conditions such as shallow soils and wetlands which are removed from the gross area for site preparation.

Thinning to-date is at 100% of planned. This program was undertaken at the beginning of the plan term and completed prior to market conditions deteriorating.

Expenditures to-date for the current term, as shown in Table 2, for renewal and tending operations are at 72% of planned. These expenditures are closely related to the Artificial Regeneration conducted during the plan term which was at 71% of the planned, and thinning at 100% of planned. (AR-9). This also corresponds with the reduced harvest, which was 59% of the planned area. More detail breakdown of expenditures for individual types of regeneration activities was not available.

Table 2. 2003 - 2008 Expenditures as taken from 2007/08 Annual Report

Expenditures ($)

Activity	Forest Renewal Trust Fund or			Forestry Futures Trust Fund (000s $)	
	Forecast	This Year	To Date	This Year	To Date
Natural Regeneration	24				
Artificial Regeneration	2,317				
Site Preparation	*1,112*				
Tending	169				
Renewal Support	338				
Other Eligible Activities					
Protection (Insect Pest Control)					
Total	3,961	367	2,844	0	178

The renewal trust fund has not drop below the minimum balance.

AR-10 is a report of the silvicultural effectiveness of the treatments performed on the Red Lake Forest over a number of terms. It is very difficult to identify how well each treatment is working due to the change in Forest Units from the 1998 plan to the 2003 plan. The information should show the trends more clearly in 5 – 10 years providing the forest units do not change. However, AR 13 summarizes the more detailed information for the surveys conducted in 2005 on areas harvested in the year 1998-1999 and 2000.

More area was assessed than projected in the 2003 FMP. Of the area assessed, 100% of the area was successfully regenerated while 51% of the area was successfully regenerated to the projected forest unit. This indicates that perhaps more of the natural seed bank should be considered when determining the projected forest unit. The correlation between Forest Unit at harvest and at Free to Grow seems to correlate as planned. Keeping into consideration the natural process in the Red Lake Forest, regarding the cross over from PjDee to SbDee in the later years as described earlier. The natural seeding of Pj into the spruce plantations may provide some erratic numbers between the two FU's in the early years. It should be noted this is a short term effect over the rotation period of these Forest Units but should none the less be factored into the next Forest Management Plan modeling inputs, and SGR projections.

The results of the surveys would indicate that silvicultural practices on the Red Lake Forest should continue as planned in the 2003 plan and 2008 plan. The planting of Red Pine is a novelty but doesn't have the best return. Considering that there is no local seed source, and that the success of the Red Pine is so erratic, it does not make it a preferred species to be planted on the Red Lake Forest. In times like these, since 2005, with market conditions as is and mill closures, the company is struggling to financially stay alive, money should be spent wisely and in proven practices. Planting of spruce and seeding of jack pine provides very good results on the Red Lake Forest. Planting of Red Pine and the PrMan FU has been discontinued in the 2008 FMP.

AR-10 shows the amount of area regenerated by surveys conducted in 2005 by the Red Lake Forest Management Company Ltd. (8,984.3 ha) and surveys conducted by the Red Lake MNR district in 1998 and 1999. The table shows some differences between the harvest areas (3,168.3) reported by MNR for the term 1996-1998, and regenerated area of 4,769.5 ha. These surveys conducted by the SFL were identified as being harvested in the 1996-1998term. It is assumed that the harvest date for some of these areas must have been prior to 1996 or possibly in summer 1998, as the surveys conducted for the harvest done during the term 2003-2008 would have been more accurate with up to date records on file. Surveys conducted by MNR (10,782.0 ha) in 1998 and 1999 were assumed to be harvested during plan-terms prior to 1996.

With no estimate of area lost to roads and landings for plan term 1996-1998, it would be safe to assume areas harvested in 1996-1998have been successfully regenerated. The area harvested for the term 1998-2003 is reported as 7,382.9 ha, with 1,915.8 ha successfully regenerated to date. Areas harvested in 1998 and 1999 were mostly regenerated in 2000, only selected areas from these areas regenerated were targeted for regeneration surveys in 2005, with only 4 growing seasons in the field.

The remainder of the area harvested in the 1998-2003 term is scheduled for regeneration surveys during the plan term of 2008-2018. Of the area reported for harvest in the 1998-2003 plan term and the 2003-2008 plan term, estimated loss for roads and landings has been reported at 4% of harvest. Harvest levels reported in the table AR-10 do show the 4% reduction for roads and landings.

Surveys conducted by the SFL were selected on the basis of year of harvest and the areas that were identified in the inventory as not being Free to Grow. All areas identified on the XYZ maps have now been surveyed and brought back into the inventory as production forest. This is reflected in the production forest used in the 2008 plan.

Regeneration surveys on the Red Lake Forest show that most sites are regenerating satisfactorily within the prescribed 7 yrs for most situations. In some cases such as for the PjDee and SbDee Forest Units Free to Grow status can be reached several years ahead of plan. The practice by the company of quick renewal after harvest has shown to be very effective in maintaining the production forest level at its maximum.

The MNR district conducted extensive surveys of ES 12 sites in 2004-2005 to ensure that the silvicultural treatment packages used on these sites provided the desired results. These surveys were in response to recommendation #13 in the Red Lake Independent Audit 2000-2005 Action Plan. It was found that ES 12 sites are regenerating successfully as planned and that the practice should continue, and that the company continues to participate in the monitoring program set up in the Northwest Region.

In summary, renewal and tending activities have been carried out as planned in the forest management plan, considering the relative harvest level. The expenditures are also in line with the proposed expenditures considering harvest levels. The assessment of silvicultural and regeneration success data must be viewed as a yardstick which will improve in time with consistency between forest units and silviculture ground rules between plans. At this time free to grow surveys indicate that the forest is developing to acceptable forest units.

The renewal and tending strategies are solid. Prompt regeneration should continue as a prime strategy as a backlog of treatments may lead to a more expensive treatment regime.

5.0 REVIEW OF MODEL ASSUMPTIONS

During this planning period mill shutdowns beginning with Abitibi mill in Kenora followed by other mills such as McKenzie Forest Products in Hudson, Bowater in Ignace, slow downs in the Weyerhaeuser mills in Dryden, then finally the closing of the Kenora Forest Products mill in Kenora. With market conditions getting worse to the end of the planning period, much of the AHA was left unharvested. Many of the blocks were included in the 2008 plan as bridging blocks however with market conditions getting worse, only one block (355) was actually harvested as a bridging block in spring of 2008.

It was evident during the Regeneration surveys that the areas planted to Red Pine, almost all ended up in the PjDee forest unit. This is a result of low survival of Red Pine with a combination of seeding of jack pine from the existing seed source. When determining stand boundaries for inventory purposes small 2-5 ha plantations of red pine end up part of larger PjDee stands. In all cases the performance of Red Pine was inferior to what was expected. As this was identified during the surveys in 2005 by the RLFMCL the PrMan Forest Unit was dropped for the 2008 plan. Incidental Red Pine will become part of the PjDee forest unit. The planting of Red Pine has also been discontinued in the 2008 plan. In times when the SFL is striving to maintain viability, practices should be limited to proven silvicultural treatment packages. On the Red Lake Forest the planting of black and white spruce and seeding of jack pine remains the practices of choice providing excellent results. Most of the planting and seeding has been carried out with site prep. In some cases where planting and seeding has been carried out without site prep, regeneration assessments during the 2008 planning period will provide more information. A limited number of these areas have been tried in the past, and will be analyzed closely for future reference.

Although harvest operations in the first 2 yrs of the planning period were very close to the AHA, market conditions have deteriorated from bad to worse in the last 3 yrs of the plan. The closure of the Abitibi mill in Kenora which provided an option for most of the round wood pulp from the Red Lake Forest has made a large impact on harvest operations in Red Lake. The following shut downs and slow downs of the McKenzie mill in Hudson shut down all but limited operations in Red Lake. The further shut down of the Kenora Forest Products mill in Kenora pretty much halted operations on The Red Lake Forest. With the only market available on a limited basis being the Domtar mill in Ear Falls, most shareholders have parked their forestry equipment. Although harvest operation in the 1998-2003 plan had achieved 78% of the AHA, the 2003-2008 plan is at 58% of the AHA. The RLFMCL has been in survival mode for almost 3 years. With the market conditions as is, only limited operations have been conducted, searching out poplar markets, some chipping operations in conjunction with the sawlogs going to Ear Falls. A limited market for softwood chips was available in 2007. Since 2005 only one operation (Skookum Bay Logging Ltd., L.K.G.H. Contracting Ltd., and L.& E Contracting (Dryden) Ltd. one owner, three companies) has been operating.

A large blow down (606.2 ha) during the September long weekend of 2004 accounts for the total salvage area identified in AR-6. Salvage operations started in November 2004 and continued into 2005. The timing of the blow down, was optimal as market conditions were very good at this time, with Bowater's mill in Ignace still operating, KFP in Kenora running at full capacity, and the Ear Falls sawmill. Other blow down areas have taken place in areas outside but adjacent to the Red Lake Forest. No other salvage operations were undertaken during the planning period.

It should be noted that the natural fire cycle for the Red Lake area has been reviewed and is one of the shortest in Northwest Ontario. During the planning process one of the major issues identified for Red Lake is the short natural cycle of the forest, this can be emphasized with the Parker Lake blow down which was mostly in the 81-100 age class. It should be noted that using a short fire cycle is appropriate for Red Lake as witnessed in the last 20-30 yrs, forests in the Red Lake area have a history of large fires (1980) and blow down, of which there seems to be at least one every year for the last several yrs either within the Red Lake Forest or in the Whitefeather Forest.

Fortunately the Parker Lake blow down does not affect the overall sustainability of the forest as market conditions deteriorated quickly afterwards and harvesting was very limited. At the end of the plan the entire AHA did not get harvested.

Harvest in Red Lake has always been susceptible to market conditions due to the proximity to markets; however SFL's across the province are struggling at this time. The hope for the future of the Red Lake SFL is the ongoing discussions and proposal of a value added mill in Red Lake. This project has been ongoing for over 3 yrs and looks positive however there has been no announcement at the time of this submission. The ongoing initiative for the Whitefeather Forest is also a good news story. It is of great importance to have a local market developed for the Red Lake Forest, as stability for this SFL will always be in jeopardy otherwise. SFL amalgamations have been discussed at the board of director's level but no formal discussions with MNR or other have taken place to date.

As discussed in section 4.3, Review of Renewal and Tending Activities, silvicultural treatment packages seem to be quite efficient and little change is required in future plans. Quality nursery stock produced from the Beauregard seed orchard is performing extremely well. Seeding results on the Red Lake Forest has been relatively consistent. Thinning operations will continue to minimize the projected gap in age class structure within the next 40 years.

Land base considerations are still an issue as replacement area for the Woodland Caribou Park Additions has not materialized to date, with the 2008 FMP already implemented. With the Whitefeather initiative ongoing, it is hoped this will get resolved before the next planning period (2018-2028). With SFL amalgamations ongoing, poor market conditions, changes to the Red Lake SFL must be considered in order to maintain stability. The SFL as is today will struggle indefinitely.

With the introduction of new guidelines such as the landscape guide, Caribou Conservation Plans, the looming expansion of protected areas such as Woodland Caribou Park, the viability of the Red Lake SFL is threatened more and more.

6.0 ASSESSMENT OF OBJECTIVE ACHIEVEMENT

Sections numbered consistent with the 2003 Red Lake FMP for reference.

3.5.1 Forest Diversity Objectives

Age Class Structure

To maintain long-term forest age-class structure and to protect sites from environmental degradation from forest operations.

The short-term target to pre-commercially thin 750 ha has been achieved, as presented in Table AR-9. The long-term target is to maintain age class distribution area within the bounds of natural variation as predicted in the natural benchmark run. AR- 14 shows that the ha of managed crown forest by forest unit has not changed significantly from the beginning of the 2003 plan to the end of the plan term. Overall there has been a slight increase in the younger age groups of conifer mixedwood and hardwood mixedwood fores units. However given the change in age class groupings this may be insignificant. However, it is expected that the age class structure will remain the same over time moving the dip in age class from the large fires of the 1980 simultaneously.

Old Forest Comparison

To maintain a long-term, continuous supply of older forest.

The long-term target to maintain 3% of all forest unit areas in old growth conditions seems to be on track as the analysis for the preferred management strategy for the 2008 FMP shows that all forest unit levels of old growth are above 3% for the next 100 yrs. Levels vary between 3-12% depending on forest unit.

The short-term target of 3% old growth for all forest units has been met, as demonstrated in the analysis for the 2008 FMP.

To maintain occurrence of rare or old tree species at or above Year 2003 levels is the last target, however specific data to verify this target is not readily available. However with old growth over 3% for all forest units in the 2008 plan, it is anticipated that this target has been met. No data is available for individual working groups as this was not reported in the 2008 FMP.

Landscape Pattern

To ensure that forest management activities cause movement towards (or maintenance of) a more natural landscape pattern characteristic of Site Region 4S.

Although the numbers projected were not attained due to lower harvest levels, several of the disturbance size classes have moved towards the template. Table 1 in section 4.2 provides information at start and end of planning period. Disturbances in the 10-130 size class, was 83% at plan start and has moved to 79%, close to the projected of 78% and moving towards the template at 40%. The other size class which has shown good movement is the 520-1040 ha class which moved from 2% at plan start to 5% at plan end, lower than projected 7% but still moving towards the template at 13%. The size class >10,000 went from 1% to 0% same as the template. Of the 8 disturbance size classes 7 have moved towards the template or stayed the same.

This objective has been met and it is anticipated the Red Lake Forest will continue to move towards the natural template in the 2008 plan.

During the analysis for the 2008 plan the need for additional insular and peninsular patches was very limited. This coincides with the fact that many ecosite 12 areas must be left unharvested due to rough terrain, providing for much of the insular and peninsular patches. This along with the number of small lakes and streams with reserves provides much of the required residual component to meet the NDPE requirements.

Wildlife Habitat Function

To maintain forest function for long-term wildlife habitat in the Red Lake Forest.

Habitat requirements for selected wildlife species as reported in RPFO-16 and AR-14 is non-conclusive, due to a change in featured species from plan to plan, and different values used in each plan. The following selected Wildlife Species Habitat Targets are identified in the 2003 FMP and results from the AR-16 indicate that most of the selected species habitat information available includes the Great Grey Owl, a target of 327 km2 was identified and at 2008 the level was at 370 km^2. The target level for moose summer was at 387 km^2 and in 2008 levels were at 558 km^2, the winter target of 556 km^2 is achieved in 2008 with 767 km^2. White-tail deer winter target of 62 km^2 and in 2008 level is at 76.4 km^2. Woodland Caribou summer target of 452 km^2 and winter of 61 km^2, with 2008 levels at 1119.2 km^2 for summer and 254.4 km^2 for winter habitat.

The target for Pileated Woodpecker is 29 km^2 and in 2008 the levels were at 16.2 km^2. The projected target at year 15 and 60 is 29 and 52 km^2 showing that habitat for this selected species will get better over time.

The long-term desired level of 10-20% capable Marten Habitat area in suitable conditions is not possible on the Red Lake Forest, however during the preparation of the 2008 FMP analysis showed that it was possible to increase the present level from 5.8 to 6.1% over the next twenty years. This is considered acceptable considering the impact of the large fire disturbances over the past years on the Red Lake Forest, and since 75% of the forest is managed at the landscape level for caribou, which will also provide large tracts of core habitat for marten in the future.

The caribou mosaic developed in 2003 was used again in 2008, with several more mosaic blocks added south of Red Lake and several others identified for clean up to be added to the mosaic in future plans. These additional mosaic blocks will provide future habitat for caribou and extend available habitat south of the 2003 Caribou mosaic.

AOC prescriptions were used to protect or enhance wildlife habitat. This would include protection of stick nests for eagles, heron rookeries, osprey nests and moose aquatic feeding areas.

Soil Function
To maintain the productivity of soil function

The protection of fragile ecosite 12 where operations are taking place was achieved during the planning period. The planning team in the 2003 plan and again in the 2008 plan chose to use a Forest Unit for all stands on ecosite 12; as such CoSha forest unit is identified on all AWS maps. Forest operation prescriptions are followed for this Forest Unit with no infractions reported within the last four years. Operators have received training in best practices for this Forest Unit both with the theory and practical field guidance, with one-on-one instructions. On the Red Lake Forest ecosite 12 is identified by the CoSha forest unit and represents a large amount of area.

Aggregate pits are rehabilitated as they are no longer required as reported in the annual aggregate report.

Fisheries and Water Quality Function
To maintain water quality and protect fisheries habitat within watersheds where forest management activities occur.

The target is to have no second-order watersheds south of the Caribou range occupancy line exceed the 50% disturbance level during the plan term as a result of planned harvest operations. This target is no longer valid as the caribou zone has been extended with several additional mosaic blocks south of the original caribou zone line. The present caribou zone as of the start of the 2008 FMP has been expanded considerably south of the original Caribou zone identified in the 2003 plan. With additional Caribou mosaic blocks these are on schedule to be cleaned up to try and even out the age class to provide suitable Caribou habitat. These blocks are situated on the south side of Red Lake towards the west, extending from the Draco Medicine Stone road to Woodland Caribou Park. Two additional blocks between Pakwash Lake and Red Lake are presently scheduled for clean-up to be considered for the caribou mosaic in the next planning term. It is believed that this area may have suitable habitat.
All other strategies such as AOC's including timing restrictions for water crossing installations were used to protect fisheries habitat.

3.5.2 Social and Economic Matters Objectives

Sustained Wood Supply
To provide a predictable and continuous supply of wood products to the forest products industry from the Red Lake Forest

A total volume of 171,000 m^3 (160,000 spruce-pine-fir, and 11,000 poplar) was made available during the planning period. Market conditions during the last three years of the plan deteriorated and total volumes were not utilized. In the short term the 2008 FMP has an AHA of 170,000 m^3 of spruce-pine-fir and 30,000 m^3 of poplar. For the long-term it is expected that the skewed age class structure of the Red Lake Forest will leave a gap in the total volume available for harvest from 2018 to 2038 where annual harvest area is expected to dip from 1,500 ha per year to 1,400 ha per year for a 20 period. This gap has been discussed in previous plans, however with the extended Caribou mosaic in place, no "B" blocks in the mosaic for harvest in the time period 2018-2038; decreased land base due to Lands for Life and additions to WCP, the total licensed area is too small to compensate for these large landscape decisions. Possible SFL amalgamations and the continued development of the Whitefeather initiative could provide some wood supply relief in the future.

The planting target of 1,093,200 genetically superior black spruce stock per year was achieved with an actual average of 1,183,200 trees annually. The planting of 67,800 Red Pine annually also surpassed the target level of 45,000 per year.

Personal and Commercial Use

To make available to local users incidental volumes of timber for such uses as fuelwood, building logs, furniture and other materials for personal or small scale commercial use.

A total of 7,305 m^3 was made available for personal and small commercial uses.

Working with Aboriginal Peoples

To work with local Aboriginal Peoples, whose communities are situated in or adjacent to the Red Lake Forest, to identify and implement ways to maintain or enhance social and economic benefits to Aboriginal peoples who traditionally use the forest for subsistence and spiritual value.

The planning team for the 2008 FMP included one representative from the Pikangikum First Nation as an observer to provide assistance in developing open communication lines with Pikangikum and provide some capacity building in the development of future management plans for the Whitefeather initiative. Other initiatives by the SFL included pre-planning stakeholders meetings, of which the Head Trapper for each trap line was invited to participate to provide information on potential values on individual trap lines on the Red Lake Forest. Several meetings were held throughout the planning process to ensure trappers were aware of the progress in the plan and to ensure opportunity was provided for comments and suggestions. Other initiatives included a training program for the use of chainsaw and skidder operation in actual field operations for a period of 6 weeks, conducted by one of the shareholders of RLFMCL.

The representative from Pikangikum on the planning team co-operated with MNR in preparing the Native Background Information Report.

Tourism and Other Commercial Uses

To recognize and respect the legitimacy and presence of other commercial businesses and to contribute to the economic viability of resource based industries in or adjacent to the Red Lake Forest through the protection of associated values.

All RSA agreements were followed with no reports of non-compliance and no issues arising from the RSA's. In the 2003 FMP the SFL had signed 3 RSA agreements, and in the 2008 FMP five RSA agreements have been signed. Some tourist operators who participated did not sign an RSA, however did make contributions in providing information of known values to be protected and in the development of AOC's.

Several individual stakeholder groups were invited to participate in the planning process for the 2008 FMP, including mining and exploration, trappers, bait fish operators as well as meetings with the Municipal council. Meetings were organized for each individual stakeholder group to ensure maximum opportunities for comment and interaction with members of the planning team. In some instances several meetings were held to attempt to resolve as many conflicts as possible and in many cases to provide background and assistance on how to participate in the planning process, regarding issues with road abandonment, protection of specific values and timing issues.

This interaction with all stakeholder groups provided opportunities to gain support for the 2008 FMP prior to the public information sessions.

Road Accessed Recreation

To provide road-based access, land use and recreational opportunities through road maintenance and development to access areas planned for harvest within the plan period.

All primary and secondary roads were maintained during the plan period, and the Five Lakes Road Extension (6.4 km) was constructed. The Owl road did not get built because of changes to the Caribou Mosaic during the 2008 FMP planning. The area where the approved Owl Road was to be built became part of a "C" block and formed part of a travel corridor to be left until later. This change in strategy was agreed to by the SFL holder, MNR and the planning team.

The availability of the provincial roads funding provided funds for much needed work on primary roads on the Red Lake Forest. During this planning period upgrades to the Suffel Lake Road, Dixie Lake Road and the Devlin Pakwash Road were the major projects undertaken. As well the Robillard Road was ditched and brushed preparing it for a lift of gravel and culvert upgrade in the 2008-09 year. The Devlin Pakwash Road was completed in 2008.

These major upgrades provided benefits to the general public for access, recreation, the mining companies performing exploration and the most used access to Woodland Caribou Park.

In areas where identified trails crossed harvest blocks remedial work was completed immediately after harvest to resume access as quickly as possible, i.e.; snowmachine trails, and canoe portages.

Ownership and Other Land Use Values

To conduct forest management activities in a manner that protects private land, parks and other land ownerships or values from encroachment caused by planned activities.

During this plan term, there were no encroachments caused by harvesting operations onto private or park land.

Known values were protected through AOC prescriptions, such as timing of operations for noise, access requirements, with no non-compliance reported. Special considerations were made for Park boundary layout. During the planning process for the 2008 FMP, Park staff was provided opportunities to comment and provide suggestions on harvest block allocations early in the process.

Cultural Heritage Values

To protect identified/registered archeological and cultural heritage sites from conditions that will increase rates of deterioration, while minimizing fiber loss and archeological mitigation costs.

There were no negative impacts on identified archaeological or cultural heritage values resulting from forest management activities.

3.5.3 Provision of Forest Cover Objectives

In this plan, the planning team agreed to group all management objectives relating to the provision of forest cover for any natural or environmental function in the previous 3.5.1 Forest Diversity Objectives section:

Age Class Structure
Old Forest Structure and Composition
Landscape Pattern
Soil Function, and
Fisheries and Water Quality Function.

Objectives relating to the provision of forest cover for social or economic benefits are included in the previous 3.5.2 Social and Economic Objectives section:

Sustained Wood Supply
Personal and Commercial Use
Working with Aboriginal Peoples
Tourism and Other Commercial Uses
Road Accessed Recreation
Ownership and Other Land Use Values, and
Cultural Heritage Values.

3.5.4 Silviculture Objective

The broad Silviculture objective for the Red Lake Forest is to implement planned levels of harvest, renewal and maintenance contained in this forest management plan to aid in the achievement of the thirteen specific management objectives stated under 3.5.1 forest diversity and 3.5.2 social and economic objectives section (listed above). Targets relating to this broad silvicultural objective are contained in various targets and strategies associated with the thirteen specific management objectives in 3.5.1 and 3.5.2.

Overall the assessment of achievement of management objectives is very good, in areas where data is not available only a general comment can be made. It is evident that the existing management strategies are working and that the practices on the Red Lake Forest provide for the sustainability of the Crown Forest on the management unit. It should also be noted that the size of the unit, with its large fire disturbances from the 1980, will have an impact on the level of harvest for several plans. A new inventory for future plans may help, however it is unlikely that the age class structure will change much. The fact that this small unit is managed using the Caribou mosaic on 75% of the unit, with no "B" blocks available for harvest for a 20 yr period will be very challenging.

During the preparation of the 2003 FMP, the planning team was anticipating that replacement area for Woodland Caribou Park Additions (removal from the Red Lake Forest) would be resolved and that the replacement area suggested could possibly become "B" blocks in the caribou mosaic. With the completion of the 2008 FMP replacement area has not taken place. SFL amalgamations in the future could resolve some of the challenges facing the Red Lake Forest. The physical size of the SFL and the effects of landscape type management strategies are the most challenging issues in the near future.

7.0 Determination of Sustainability

Measurable indicators of sustainability and the corresponding tables which report on those indicators are RPFO-13 to RPFO-18 as documented below.

RPFO-13 Comparison of Projected, Actual and Desired Future Forest Condition for the Managed Crown Forest Area Available For Timber Production

This table shows the total land available for timber production at the beginning and the end of the term. The difference between start of term and end of term actual is that protection forest is include in the end of term numbers as they are included in the 2008 plan.
Forest Condition from Start of Term to End of Term Actual and projected seems to stay relatively consistent throughout the Forest Units.
The Desired Future Forest Condition is relatively consistent except for the PjDee and SbDee. This is expected as the difference in time would be consistent with the amount of Sb or Pj in

each of these forest units. Depending on the age of the stands, PjDee will cycle into the SbDee forest unit over time as the jack pine gets older and more spruce becomes part of the canopy. This is typical on this forest as most of the pine stands have a component of spruce and this component increases over time. The SbDee seems to be an older version of the PjDee stands. This analysis was done during the 2003 plan to determine Marten core habitat and suitability. It was found that near the age of 40-60 yrs old most PjDee started to have a much larger component of spruce, and as the stands aged the spruce component became more prominent and became much more suitable for Marten habitat.

It should also be noted here that age class structure is very apparent. The age class distribution is skewed due to the large fires of the 1980. This will cause a drop in the AHA for several plans until those fires are back on track for harvest. This issue was discussed and assessed during the scoping for the 2008 plan.

RPFO-14 Summary Report of Managed Forest Area Available For Timber Production

Table RPFO-14 shows that the Managed Forest Area available for timber production has changed substantially between the predicted from the 1996-1998 plan term to the 2003-2008 plan term with an increase of approximately 20,000 ha.

RPFO-15 Summary Report of Landscape Pattern or Forest Diversity Indices

The measurable index has changed and plan end values for 2003-2008 are not available, therefore a comparison is not possible.

RPFO-16 Summary Report of Habitat for Selected Wildlife Species

Predicted values for selected species were not available for the predicted at year 5 for the 2003 plan, making assessment with the actual impossible. When comparing the values for example for Caribou summer and winter the amount of habitat seems to decrease in the short term and then come back up in the long run. The values for Great Grey Owl and Marten seem to remain relatively constant in both plan terms for predicted and actual in short term then a drop with recuperation into the future.

Moose summer and winter seems to have stayed consistent for both plan terms within the 5 year period. The values in moose winter habitat predicted in the mid term 15-20 yrs are low then comes back up in the future.

This could be explained by the fact that the Red Lake Forest will have a period of low harvest levels due to the age structure on the forest, due to the large fires of the 1980. During scoping sessions for the 2008 plan it was apparent that harvest levels will drop for a period of time due to the age structure on the Red Lake Forest as a result of the larger fires of the 1980. This age class structure will also affect certain species habitat. It will take a long time to offset the imbalance in age class structure due to those large fires.

RPFO-17 Summary Report of Landscape Processes

This table does not have enough data to do an assessment.

RPFO-18 Summary Report of Selected Measurable Indicators of Forest Sustainability Criteria

Total Productive Crown Forest by working group has decreased from the 1998 plan to the 2003 plan by approximately 6,000 ha. This change is attributed directly to change in land classification in the new inventory used in the 2003 FMP. The change is from Productive Protection Forest in the 1998 plan to Non Productive Forest in the 2003 plan. This can be viewed in table FMP-1a of the 2003 FMP.

In the% of Available Harvest Area actually utilized (by forest unit) it is clear that the amount of forest utilized in the 2003 plan was much lower than in the 1998 plan. This is completely due to poor market conditions, starting with the closing of the Abitibi mill in Kenora in 2005. The % of forecasted silvicultural budget requirement actually received was at 72% which is explained by the low harvest % of forecasted. Silvicultural activities were limited due to much lower hectares for individual treatments. An example of this is the seeding program, the company normally accumulates several yrs of area scheduled for seeding to ensure a viable seeding program, and with harvest being much lower, it takes several years to accumulate enough hectares to make it a cost effective seeding program.

Although harvest operations have fallen short of the planned harvest due to deteriorated market conditions and related objectives have not been met, all other management objectives not dependent on harvest have been met. Objectives are being achieved and progress is being made towards the desired forest and benefits.

A skewed age class structure, as a result of large 1980 fires may be offset by some of the pre-commercial thinning projects since the inception of the SFL. It is expected however that this age class structure, the small size of the SFL and landscape management decisions will impede the viability of the SFL

3.6.1 Social and Economic Review

Comparison of Projected and Actual GPI

Value-added is a measure of net output. It is equal to income (GPI). It may be calculated by adding wages, interest rent and profits. Alternatively, it is equal to revenues minus the total cost of purchased inputs.

The actual gross value added as a result of forest management activities conducted on the Red Lake Forest (e.g., the sum of direct and indirect & induced income) during the 2003-2008 term at the Provincial level (GPI) was $2,897,096. This value was generated for the purposes of this Annual Report using the Socio Economic Impact Model (SEIM, Version 7.01) based on inputs from tables AR-5 and November 2008 product price and conversion factors provided by MNR's Forest Information Analyst (Forest Evaluations and Standards Section, Forest Management Branch).

The content of Appendix 4 of the 2003-2023 FMP indicates that implementation of forest management activities associated with the selected management alternative would result in a projected GPI of $2,998,000. This value was generated using SEIM (Version 5.1) and assumptions regarding inputs, product price and conversion factors are documented in Appendix 4 of the 2003-2023 FMP. It should be noted that the SEIM files developed for the 2003-2023 FMP considered only harvest volumes associated with normal harvest operations (i.e., planned salvage harvest volumes were not included) and that all volumes harvested were presumed to be delivered first to either sawmills or pulp and paper mills.

The actual GPI for the period 2003-2008 is $101,000 less than, or 97% of, the projected GPI. Assuming assumptions made regarding inputs to the SEIM files were and are sound, and the changes between Version 5.1 and 7.01 don't preclude direct comparisons, it is remarkable that the actual and projected GPIs are as close to one another as they are when one considers:

- Only 65% of the forecast normal harvest area was actually harvested
- Total harvest volume (normal + salvage harvest, all species) showed a downward trend over the 5-year term (see figure below).

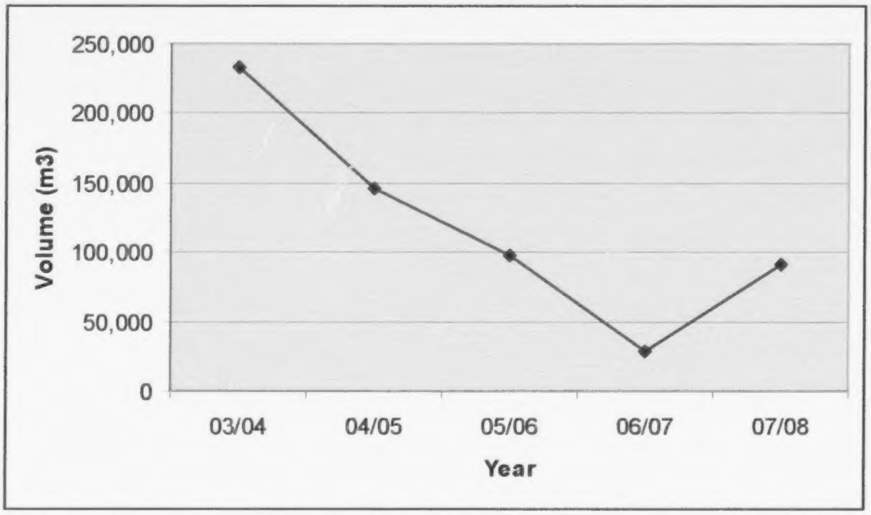

Figure 1. Harvest volume (m3) on the Red Lake Forest under the 2003 FMP.

The 'closeness' of the actual GPI for the period 2003-2008 to that which was projected should not, however, be interpreted as meaning there is a vibrant industrial activity in the Red Lake Forest and adjacent forest management units. Since 2005, the forest industry in the Red Lake area and elsewhere in northwestern Ontario has been struggling to deal with poor economic factors including, but not limited to: dramatic decrease in pulp/paper demand, decreased US housing construction, rising energy costs; rising Canadian dollar (particularly in 2006/2007); the Canada/U.S. softwood lumber dispute; and, competition from other jurisdictions (e.g., cheaper pulp from the southern hemisphere). These factors have led to the outright closure of some facilities (e.g. Bowater, Ignace; Abitibi Consolidated Company of Canada, Kenora; Multiply, Nipigon), the idling of other facilities (e.g., Mackenzie Forest Products, Sioux Lookout; Kenora Forest Products, Kenora).

Changes in the Social and Economic Description

SEIM and Forest Management Activities (ie. Harvest, Silivculture)

According to the Forest Management Planning Manual (2004), the S&E Assessment can be prepared using a social and economic model or a qualitative analysis based on data in the Social & Economic Description. The determination whether to use an economic model or a qualitative analysis is based on differences in timber volume and silvicultural expenditure statistics. When the levels of these elements in the developing FMP are significantly different than corresponding levels in the current Plan (e.g. > 5%) the analysis must be carried out using an economic model. Conversely, when the levels of these elements in the developing Plan are similar to corresponding levels in the current Plan (e.g. < 5%) a qualitative analysis may be conducted. This approach is supported by the Provincial Planning Economist in the Ministry's Forest Management Branch.

When the Socio-Economic section of the 2008-2018 Red Lake FMP was written, the harvest level (Available Harvest Area or AHA) calculated for the 2008 FMP was within 5% of the volume levels set out in the 2003 FMP. Therefore, new SEIM modeling was not required and it is assumed that value-added and other SEIM outputs would be relatively similar to levels calculated for the 2003 FMP.

Table 1 provides the estimated impact of the 2008 Red Lake FMP on direct employment and direct employment income at the wood processing facilities supported by harvest volumes from the Red Lake Forest.

Table 1. Estimated impacts of 2008 Red Lake FMP on direct employment and direct employment income at the primary wood processing facilities that receive roundwood from the Red Lake Forest.

	2003 Red Lake FMP	2008 Red Lake FMP/ Proposed Management Strategy	Difference
Total planned annual harvest volume of Red Lake Forest in m^3	172,518	201,368	28,850
Estimated average annual employment per 1000 cubic meters harvested (based on ratios of the major mills receiving wood from Red Lake Forest)*	1.3		
Total estimated annual employment per 1000 m3 harvested for the Red Lake Forest	224	262	38
Estimated average annual income in forest industry based on all dependent communities of Red Lake timber (Source: Statistics Canada 2001, Demographic Profile)	$49,604	$49,604	$0
Total estimated employment income generated timber harvest from Red Lake Forest	$11,111,296	$12,996,248	$1,884,952

Note:

- For the plan under development/ Proposed Long-term Management Strategy, average annual harvest volume of the 1st 10-year term used.
- *Significance" is determined based on the judgment of a planning team and an advice from the Provincial Planning Economist. It is suggested that the 5% threshold should be used: as such, if the average annual harvest volume of the developing plan is 5% below that of the current plan, then a model (SEIM or any other model) has to be used.
- The decision on whether to proceed with SEIM runs or not is made based on consultation with the Provincial Planning economist.
- Employment to harvest ratio determined provided by Provincial Planning Economist.
- Delivered wood fibre for 2005-06 as of June 6, 2006
- Average forestry based employment determined from Demographic Profiles collected from Canadian Census 2001. The employment and incomes provided here represent only mill - related employment and incomes, and do not include harvesting and silviculture related employment and incomes. Therefore, data represented here underestimates the direct impacts of the 2008 Red Lake FMP as it does not represent entire forest management activities.

In addition to a downturn in the demand and subsequent change in forest commodity pricing, harvest volume shortfall is considered another factor in decreased economic return.

The volume harvested during the 2003-2008 term was approximately 630,000 m^3. This is 232,590 m^3, or 27% less than the planned volume of 862,590 m^3 for the 5 year term. The reduced volume recovery is directly related to a 6% reduction in the area harvested (including salvage and bypass area).

Silvicultural expenditures from the Forest Renewal Trust Fund, as projected in the 2003-2008 FMP, were to be $792,200 annually. Actual silvicultural expenditures were an average of $624,818 annually. This represents a 22% reduction between planned and actual silvicultural expenditures over the 5-year period.

Demographic Profiles

The socio-economic profiles for communities receiving wood from the Red Lake Forest were included in the 2003-2008 and 2008-2018 FMPs. These profiles are contained in Appendices of both documents. Unfortunately, it is difficult to directly compare the two profiles as they were developed by Statistics Canada using different censuses methodologies. Also, they have different levels of geographies; the 1996 Census was based on Districts, while the 2001 Census was based on Communities termed Census Subdivisions (CSDs). In addition, there are differences in woodflow between the two profiles and therefore different communities are profiled; and some of the formulas used are different so the values for these two different profiles would be different. Also, the 2003 FMP profile did not contain an aggregated profile of all communities.

Accepting the shortcomings associated with direct comparisons of the District-level demographic profiles, it is possible to note the following changes between the 2003-2023 FMP and the 2008-2018 FMP based on the 1996 and 2001 census data, respectively:

Red Lake District

- Average annual household income had risen from $45,047 to $66,274
- Average dwelling value had risen from $101,856 to $104,787
- The average number of persons per household had risen from 2.5 to 2.6

The forest sector employment rate was in 7.4% 1996; in 2001, 5.2%

3.6.2 Recommendations

The 2008-2018 FMP has been approved and implemented April 1, 2008. Recommendations from the 2000-2005 Independent Forest Audit, Final Action Plan have been implemented and documented in the Final Status Report to be submitted November 21, 2008.

Overall the assessment of achievement of management objectives is very good, in areas where data is not available only a general comment can be made. It is evident that the existing management strategies are working and that the practices on the Red Lake Forest provide for the sustainability of the Crown Forest on the management unit. It should also be noted that the size of the unit, with its large fire disturbances from the 1980 fire, will have an impact on the level of harvest for several plans. A new inventory for future plans may help, however it is unlikely that the age class structure will change much. The fact that this small unit is managed using the Caribou mosaic on 75% of the unit, with no "B" blocks available for harvest for a 20-year period will be very challenging.

During the preparation of the 2003 FMP, the planning team was anticipating that replacement area for Woodland Caribou Park Additions (removal from the Red Lake Forest) would be resolved and that the replacement area suggested could possibly become "B" blocks in the caribou mosaic. With the completion of the 2008 FMP replacement area has not taken place.

SFL amalgamations in the future could resolve some of the challenges facing the Red Lake Forest. The physical size of the SFL and the effects of landscape type management strategies are the most challenging issues in the near future.

Although harvest operations have fallen short of the planned harvest due to deteriorated market conditions and related objectives have not been met, all other management objectives not dependent on harvest have been met. Objectives are being achieved and progress is being made towards the desired forest and benefits.

As the forest industry continues to suffer setbacks, with mill closures and the slow economy in the US, harvest operations on the SFL have suffered substantially. Starting with the closure of the Abitibi mill in Kenora followed by the closing of the woodroom in Dryden, closure of the Kenora Forest Products Mill, Ignace Sawmill, McKenzie Forest Products mill, and now Domtar Ear Falls Mill; the shareholders of the RLFMCL have very few opportunities for wood sales. There is still no market for pulpwood, and the only market for sawlogs was with Domtar Inc. (Ear Falls). Over the past year we have harvested a significant amount of wood, however this was due to a shortage off the Trout Forest. Once this is complete the Red Lake Forest will be back to minimal operations.

With lower than forecasted harvest levels, achieving objectives related to silviculture has also been affected. Even though we have met targets for this year it is expected that we will not meet our targets for this plan due to the market conditions.

While it is anticipated that market conditions will not change in the immediate future, negotiations for a new added value mill in the Red Lake area are ongoing. This may not provide relief immediately, however could provide a much needed market to meet the harvest allocations in the 2008 plan.

MANAGEMENT UNIT NAME: Red Lake Forest- 84
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 200

RPFO-13 COMPARISON OF PROJECTED, ACTUAL AND DESIRED FUTURE FOREST CONDITION FOR THE MANAGED CROWN FOREST AREA AVAILABLE FOR TIMBER PRODUCTION

Forest Unit	Age Class	Stage of Management	Forest Condition (ha)			Desired Future Forest Condition (ha)	
			Start of Term	End of Term Actual	Projected <2023>	Past Term <2063>	Current Term <2108>
ConMx	B & S	Clear-cut	54.5		30.7	9.7	54.5
	1-20	Clear-cut	4,316.0	5,148.9	1,497.1	1,851.8	1,477.8
	21-40	Clear-cut	2,179.0	3,455.2	4,341.6	2,211.5	1,847.9
	41-60	Clear-cut	2,759.0	1,942.4	2,019.3	1,461.1	1,798.9
	61-80	Clear-cut	1,785.0	2,545.9	2,508.0	3,573.5	856.0
	81-100	Clear-cut	1,676.0	1,622.6	1,550.5	990.2	870.5
	101-120	Clear-cut	905.0	967.7	1,487.3	13.0	411.7
	121-140	Clear-cut	612.0	689.5	638.8	16.8	239.0
	141+	Clear-cut	81.0	240.4	279.7	103.2	413.1
	ConMx	**Subtotal**	**14,367.5**	**16,612.6**	**14,353.0**	**10,230.8**	**7,969.4**
CoSha	B & S	Clear-cut	1,452.5		817.0	258.5	1,421.5
	1-20	Clear-cut	8,340.0	4,420.7	3,849.2	8,855.4	4,216.8
	21-40	Clear-cut	8,299.0	12,771.0	7,872.9	3,653.8	3,085.9
	41-60	Clear-cut	1,010.0	2,437.3	7,507.4	3,317.0	4,857.7
	61-80	Clear-cut	1,072.0	934.7	784.9	4,955.9	5,149.1
	81-100	Clear-cut	986.0	1,090.7	852.8	184.9	2,004.9
	101-120	Clear-cut	827.0	326.0	669.1	146.2	1,046.8
	121-140	Clear-cut	1,053.0	1,105.6	175.3	167.5	0.0
	141+	Clear-cut	0.0	57.8	309.4	73.4	268.7
	CoSha	**Subtotal**	**23,039.5**	**23,143.8**	**22,838.0**	**21,612.6**	**22,051.2**
HwdMx	B & S	Clear-cut	58.8		33.1	10.5	87.2
	1-20	Clear-cut	452.0	1,246.2	904.9	853.0	2,330.9
	21-40	Clear-cut	1,865.0	2,385.6	436.6	1,788.6	1,517.5
	41-60	Clear-cut	2,511.0	3,367.9	1,748.6	801.0	1,979.9
	61-80	Clear-cut	889.0	2,299.2	2,280.5	349.1	1,717.8
	81-100	Clear-cut	388.0	961.2	831.6	1.0	827.9
	101-120	Clear-cut	94.0	484.6	4.4	0.0	454.5
	121-140	Clear-cut	32.0	173.2	33.1	3.3	34.4
	141+	Clear-cut	0.0	55.4	9.2	0.0	0.0
	HwdMx	**Subtotal**	**6,289.8**	**10,973.3**	**6,282.0**	**3,806.5**	**8,950.1**
PjDee	B & S	Clear-cut	1,142.6		642.7	203.4	836.9
	1-20	Clear-cut	22,525.0	11,840.8	12,063.3	17,571.9	24,977.8
	21-40	Clear-cut	17,181.0	29,477.3	20,900.4	15,141.0	21,448.3
	41-60	Clear-cut	3,922.0	5,359.8	15,542.1	9,949.8	14,672.8
	61-80	Clear-cut	4,606.0	4,942.3	2,976.2	8,309.4	6,803.2
	81-100	Clear-cut	1,551.0	1,913.0	1,459.7	441.3	2,705.7
	101-120	Clear-cut	529.0	619.7	469.4	0.0	55.0
	121-140	Clear-cut	421.0	396.0	183.6	210.9	0.0
	141+	Clear-cut	18.0	314.5	210.9	229.5	0.0
	PjDee	**Subtotal**	**51,895.6**	**54,863.3**	**54,448.3**	**52,057.2**	**71,499.6**
PrMan	B & S	Clear-cut	0.0		217.3	0.0	
	1-20	Clear-cut	260.0		235.2	902.1	
	21-40	Clear-cut	27.0		24.4	608.3	
	41-60	Clear-cut	0.0		0.0	173.7	
	61-80	Clear-cut	0.0		0.0	19.2	
	81-100	Clear-cut	0.0		0.0	0.0	
	101-120	Clear-cut	0.0		0.0	0.0	
	121-140	Clear-cut	0.0		0.0	0.0	
	141+	Clear-cut	0.0		0.0	0.0	
	PrMan	**Subtotal**	**287.0**	**0.0**	**476.9**	**1,703.3**	
PoAll	B & S	Clear-cut	498.4		280.4	88.7	425.8
	1-20	Clear-cut	615.0	894.3	3,554.3	1,576.7	5,523.1
	21-40	Clear-cut	3,940.0	4,434.4	691.8	4,510.7	4,088.9

	41-60	Clear-cut	1,684.0	1,659.5	2,821.6	2,922.1	2,031.6
	61-80	Clear-cut	1,201.0	1,850.6	888.6	206.9	269.4
	81-100	Clear-cut	202.0	464.1	116.0	0.0	267.8
	101-120	Clear-cut	69.0	152.6	70.0	0.0	196.5
	121-140	Clear-cut	138.0	118.9	55.2	0.0	17.3
	141+	Clear-cut	0.0	66.7	6.1	0.0	0.0
	PoAll	**Subtotal**	**8,347.4**	**9,641.0**	**8,484.0**	**9,305.1**	**12,820.4**
SbDec	B & S	Clear-cut	5,872.2		3,303.1	1,045.4	4,845.4
	1-20	Clear-cut	12,718.0	14,614.4	12,385.8	8,393.6	2,820.3
	21-40	Clear-cut	1,672.0	2,653.7	12,142.3	9,447.2	6,945.5
	41-60	Clear-cut	5,281.0	5,541.5	1,521.2	10,461.3	5,432.9
	61-80	Clear-cut	7,243.0	5,935.5	4,785.7	10,012.3	3,741.1
	81-100	Clear-cut	7,087.0	7,249.3	6,342.0	1,337.0	4,912.3
	101-120	Clear-cut	3,599.0	2,870.4	889.0	3,349.6	323.2
	121-140	Clear-cut	3,309.0	3,314.0	461.5	1,717.4	0.0
	141+	Clear-cut	622.0	1,002.0	1,395.4	1,269.2	37.6
	PoAll	**Subtotal**	**47,403.2**	**43,180.9**	**43,226.0**	**47,033.0**	**29,058.3**
SbLow	B & S	Clear-cut	3,124.0		1,757.2	556.0	2,498.4
	1-20	Clear-cut	1,533.0	4,676.3	6,329.3	1,936.5	2,552.4
	21-40	Clear-cut	114.0	136.8	2,164.5	3,806.9	1,460.2
	41-60	Clear-cut	976.0	660.7	106.6	5,922.4	1,989.0
	61-80	Clear-cut	848.0	724.5	913.0	1,893.9	3,600.4
	81-100	Clear-cut	1,084.0	1,026.2	807.8	524.8	4,241.5
	101-120	Clear-cut	2,249.0	1,534.3	1,024.3	1,163.5	28.1
	121-140	Clear-cut	4,191.0	3,249.3	1,152.4	618.3	0.0
	141+	Clear-cut	3,691.0	4,917.9	3,001.7	468.8	0.0
	PoAll	**Subtotal**	**17,810.0**	**16,926.0**	**17,256.8**	**16,891.1**	**16,370.0**
		Total	169,440.0	175,341.0	167,365.0	162,639.6	168,719.1

From 2008 FMP
Table FMP-4.
no B& S category

LOWNAT included in 1-20.
No PrMan forest unit.

From SFMM available
land base beginning of
Term 11 (2108).

LOWNAT considered non-forest in SFMM (not available forest),

but was added as a separate line anyway because is available in FRI (LOWNAT total = 10,170 ha).

MANAGEMENT UNIT NAME: Red Lake Forest- 840
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 2008

RPFO-14 SUMMARY REPORT OF MANAGED FOREST AREA AVAILABLE FOR TIMBER PRODUCTION

Plan Term	Production Forest Available for Timber Production (ha)											
	<Year 5>		<Year 10>		<Year 15>		<Year 20>		<Year 40>	<Year 60>	<Year 80>	<Year 100>
	Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Predicted	Predicted	Predicted
1998-2003	144,410	169,440	n/a	n/a	n/a	n/a	142,024	n/a	141,327	141,327	141,331	141,385
2003-2008	n/a	175,341	n/a	n/a	n/a	n/a	167,364	n/a	165,023	162,639	161,403	161,219

Note 1: n/a represents not available

MANAGEMENT UNIT NAME: Red Lake Forest- 840
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 2008

RPFO-15 SUMMARY REPORT OF LANDSCAPE PATTERN OR FOREST DIVERSITY INDICES

Plan Term	Acceptable Levels			Forest or Landscape Diversity Index											
				<Year 5>		<Year 10>		<Year 15>		<Year 20>		<Year 40>	<Year 60>	<Year 80>	<Year 100>
	Index	From	To	Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Predicted	Predicted	Predicted
1998-2003	Class area														
	Dense Conifer	n/a	n/a	n/a	41516										
	Dense Pine Conifer	8	197464	8364	n/a										
	Dense Spruce Conifer	48	263056	31372	n/a										
	Mixed Deciduous	76	78168	17316	17756										
	Mixed Conifer	256	150976	17152	18068										
	Sparse Conifer	108	174624	35356	34532										
	Sparse Deciduous	204	53328	41036	41984										
	Recent Cuts/Burn	12	89880	43056	44288										
	Landscape	508	782056	193652	222016										
	Edge Density														
	Dense Conifer	n/a	n/a	n/a	17										
	Dense Pine Conifer	0.79	29.98	4.38	n/a										
	Dense Spruce Conifer	1.11	38.76	15.46	n/a										
	Mixed Deciduous	2.7	17.33	9.67	12										
	Mixed Conifer	7.56	29.23	8.92	10										
	Sparse Conifer	7.82	27.69	18.97	21										
	Sparse Deciduous	0.64	18.07	18.07	23										
	Recent Cuts/Burn	1.06	12.7	12.7	15										
	Landscape	16.93	55.72	44.08	65										
	Mean Patch Size														
	Dense Conifer	n/a	n/a	n/a	31.8										
	Dense Pine Conifer	4	49.49	16.37	n/a										
	Dense Spruce Conifer	6.86	228	21.58	n/a										
	Mixed Deciduous	5.71	11.79	9.88	9.6										
	Mixed Conifer	7.9	37.42	15.51	16.2										
	Sparse Conifer	5.82	43.18	16.85	15.9										
	Sparse Deciduous	5.37	20.17	20.17	20.6										
	Recent Cuts/Burn	4	96.11	96.11	79.7										
	Landscape	9.07	22.66	20.59	22										
	Total Core Area														
	Dense Conifer	n/a	n/a	n/a	7544										
	Dense Pine Conifer	8	20832	1016	n/a										
	Dense Spruce Conifer	4	22920	1792	n/a										
	Mixed Deciduous	4	844	128	192										
	Mixed Conifer	8	10688	880	992										
	Sparse Conifer	20	14384	1344	1408										
	Sparse Deciduous	8	2020	2020	2148										
	Recent Cuts/Burn	8	19164	10076	9972										
	Landscape	156	59076	17256	26196										
	Total Core Area Index														
	Dense Conifer	n/a	n/a	n/a	18.2										
	Dense Pine Conifer	0.6	14.57	12.15	n/a										
	Dense Spruce Conifer	0.23	12.57	5.71	n/a										
	Mixed Deciduous	0.03	1.8	0.74	1.1										
	Mixed Conifer	1.22	8.18	5.13	5.5										
	Sparse Conifer	0.41	11.43	3.8	4.1										
	Sparse Deciduous	0.13	4.92	4.92	5.1										
	Recent Cuts/Burn	1.52	33.2	23.4	22.5										
	Landscape	1.27	9.71	8.91	11.8										
	Mean Nearest Neighbour														
	Dense Conifer	n/a	n/a	n/a	319.2										
	Dense Pine Conifer	n/a	n/a	n/a	n/a										
	Dense Spruce Conifer	n/a	n/a	n/a	n/a										
	Mixed Deciduous	n/a	n/a	n/a	330										
	Mixed Conifer	n/a	n/a	n/a	377										
	Sparse Conifer	n/a	n/a	n/a	276.7										
	Sparse Deciduous	n/a	n/a	n/a	295										
	Recent Cuts/Burn	n/a	n/a	n/a	325.1										
	Landscape	n/a	n/a	n/a	323.2										
	Interspersion Juxtaposition Index														
	Dense Conifer	n/a	n/a	n/a	86.43										
	Dense Pine Conifer	54.23	87.76	76.42	n/a										
	Dense Spruce Conifer	37.17	96.12	91.45	n/a										
	Mixed Deciduous	23.41	87.57	84.76	94.6										
	Mixed Conifer	65.64	94.39	90.17	90.95										
	Sparse Conifer	11.11	91.38	90.56	91.64										
	Sparse Deciduous	68.51	98.62	79.97	90.52										
	Recent Cuts/Burn	39.56	98.98	66.73	71.25										
	Landscape	54.74	93.46	87.71	91.02										

2003-2008	Class area														
	Dense Conifer	60	365568	n/a	n/a										
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	88	77232												
	Mixed Conifer	260	128276												
	Sparse Conifer	108	173888												
	Sparse Deciduous	4	53156												
	Recent Cuts/Burn	20	91516												
	Landscape	n/a	n/a												
	Edge Density														
	Dense Conifer	17	43												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	4	23												
	Mixed Conifer	8	63												
	Sparse Conifer	9	38												
	Sparse Deciduous	0	23												
	Recent Cuts/Burn	1	34												
	Landscape	59	143												
	Mean Patch Size														
	Dense Conifer	5	176.8												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	5.2	11.4												
	Mixed Conifer	8.6	37.4												
	Sparse Conifer	6.2	43.3												
	Sparse Deciduous	4	20.6												
	Recent Cuts/Burn	4	187.1												
	Landscape	7.4	28.6												
	Total Core Area														
	Dense Conifer	0	83360												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	0	776												
	Mixed Conifer	0	10124												
	Sparse Conifer	0	14668												
	Sparse Deciduous	0	2148												
	Recent Cuts/Burn	0	26508												
	Landscape	4	113400												
	Total Core Area Index														
	Dense Conifer	0	28.3												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	0	1.7												
	Mixed Conifer	0	7.9												
	Sparse Conifer	0	11.7												
	Sparse Deciduous	0	5.1												
	Recent Cuts/Burn	0	37.8												
	Landscape	0.6	19.2												
	Mean Nearest Neighbour														
	Dense Conifer	224.4	908.9												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	289.2	922.9												
	Mixed Conifer	224.8	697												
	Sparse Conifer	232.3	699.6												
	Sparse Deciduous	0	5196.2												
	Recent Cuts/Burn	223.6	2642.6												
	Landscape	292	902.2												
	Interspersion Juxtaposition Index														
	Dense Conifer	57.61	91.59												
	Dense Pine Conifer	n/a	n/a												
	Dense Spruce Conifer	n/a	n/a												
	Mixed Deciduous	67.01	94.6												
	Mixed Conifer	50.74	92.52												
	Sparse Conifer	39.55	95.67												
	Sparse Deciduous	0	98.07												
	Recent Cuts/Burn	27.93	96.99												
	Landscape	63.57	95.28												

Note 1 Predicted values not available and actual values for 2003-2008 not available in 2008 plan The 2008 FMP has differenct indices class and are not comparable

MANAGEMENT UNIT NAME: Red Lake Forest- 840
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 2008

RPFO-16 SUMMARY REPORT OF HABITAT FOR SELECTED WILDLIFE SPECIES

Plan Term	Selected Wildlife Species	Area of Habitat Available (km^2)											
		<Year 5>		<Year 10>		<Year 15>		<Year 20>		<Year 40>	<Year 60>	<Year 80>	<Year 100>
		Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Actual	Predicted	Predicted	Predicted	Predicted
1998-2003	American Kestrel	21	8.9		n/a			30					
	American Redstart	107	191.6		n/a			118					
	Boreal Chickadee	0	385.5		n/a			0					
	Connecticut Warbler	684	148.5		n/a			654					
	Golden-Crowned Kinglet	208	211		n/a			178					
	Great Gray Owl	214	409.3		370.2			132					
	Marten	502	420.4		376.1			384					
	Moose-Summer	1001	595.8		558.7			943					
	Moose- Winter	68	694.4		767.7			59					
	Pileated Woodpecker	35	36.3		16.2			29					
	Snowshoe Hare	31	27.2		n/a			53					
	Spruce Grouse	342	291.2		n/a			575					
	Swainson's Thrush	129	121.6		n/a			141					
	White-Throated Sparrow	1132	951.7		n/a			899					
	Woodland Caribou-Summer	173	565.7		1119.2			244					
	Woodland Caribou-Winter	428	82.9		254.4			513					
2003-2008	American Kestrel	n/a	n/a			30					10.4		
	Spruce Grouse	n/a	n/a			575					452.2		
	Great Gray Owl	n/a	370.2			132					394.5		
	Pileated Woodpecker	n/a	16.2			29					52.9		
	Boreal Chickadee	n/a	n/a			0					282.8		
	Golden-Crowned Kinglet	n/a	n/a			178					171		
	Swainson's Thrush	n/a	n/a			141					181		
	American Redstart	n/a	n/a			118					136.3		
	Connecticut Warbler	n/a	n/a			654					108.4		
	White-Throated Sparrow	n/a	n/a			899					695.3		
	Snowshoe Hare	n/a	n/a			53					57.5		
	North. Flying Squirrel	n/a	n/a			n/a					393.7		
	Boreal Red-backed Vole	n/a	n/a			n/a					205.3		
	Marten	n/a	376.1			384					410.9		
	Woodland Caribou-Summer	n/a	1119.2			244					720.3		
	Woodland Caribou-Winter	n/a	254.4			513					73.3		
	White-tailed Deer (foraging)	n/a	n/a			n/a					103.3		
	White-tailed Deer (winter)	n/a	76.4			n/a					70.9		
	Moose-Summer	n/a	558.7			943					453.1		
	Moose- Winter	n/a	767.7			59					945.8		

Note 1: information for the 1998-2003 plan term from existing RPFO-16

Note 2: information for the 2003-2008 plan term extracted from the 2008 FMP-8 for actual values at year 5

MANAGEMENT UNIT NAME: Red Lake Forest- 840
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 2008

RPFO-17 SUMMARY REPORT OF LANDSCAPE PROCESSES

Plan Term	Net Primary Productivity (kg C ha^{-1} day^{-1})			Water Yield (mm ha^{-1} day^{-1})		
				Management Unit Second-Order Stream Watersheds		
	Sub-Regional Acceptable Levels		Sub-Regional Actual	Total Productive Forest Area (km2)	Productive Forest Area disturbed within 10 yrs	% Change from Previous Plan
	From	To				
1998-2003	n/a	n/a	4612	825	130 km2 (15.7%)	n/a
2003-2008	n/a	n/a	3895	1,995	n/a	n/a

Note 1: no acceptable levels reported in 1998 or 2003 plan

Note 2: NPP value was reported as 696.7 gC/m2/year in the amended 1998 FMP. However since then , NPP has been calculated with a different methodology for the beginning of the previous FMP(1997) to have been 4,612kgC/ha/year.. NPP data provided by MNR Forest Landscape Ecology Program. Data for years after 2000 not available at time of plan submission.

Note3: Total Productive Forest Area from 2008 FMP-7 for year 0 as per instructions (1,995 km2).

n/a information not available from existing plans.

MANAGEMENT UNIT NAME: Red Lake Forest- 840
PLAN PERIOD: April 1, 2003 to March 31, 2023
FIVE YEAR PLAN TERM: April 1, 2003 to March 31, 2008
ANNUAL REPORT: April 1, 2007 to March 31, 2008

RPFO-18 SUMMARY REPORT OF SELECTED MEASURABLE INDICATORS OF FOREST SUSTAINABILITY CRITERIA

Measurable Indicator	Indicator Values By Plan Term				
	WG	1998-2003	2003-2008	2008-2018	
Total productive Crown forest (by working group)ha All ownerships	B	13,904	175		
	Bw	1,788	3,577		
	Ce	47	0		
	L	441	468		
	OC	36	0		
	OH	41	21		
	Pj	108,913	91,629		
	Po	12,600	23,944		
	Pr	578	330		
	S	4,984			
	Sb	77,404	95,054		
	Sw	855	418		
	Total	221,591	215,616		
% of Available Harvest Area actually utilized (by forest unit)	FU	%	%		
	Pj1	96.7	32.2		
	Pj2	95.9	63.3		
	Sb1	60.1	77.8		
	Sb2	30.7	35.9		
	AllPr	n/a	n/a		
	AllBf	66.7	n/a		
	Hwd	38.7	14.9		
Ratio of area of riparian reserve to length of shoreline adjacent to timber harvest activity		n/a	n/a		
% of Native communities in or adjacent to the management unit which are involved in the special Native consultation option		0%	0%		
% of forecasted silvicultural budget requirement actually received		120%	72%		
Value added (millions $)		n/a	n/a		
Local citizens committee's self-evaluation of their effectiveness (1-10)		n/a	n/a	8	

Note 1: for the % Available Harvest Area actually utilized (by forest unit), due to change in FU combinations were made for comparison this includes Pj1-PjDec, Pj2-CoSha, Sb1-SbDec and ConMx, Sb2-SbLow, Hwd-PoAll and HwdMx.
Note 2: actual expenditures for silviculture for the 5 yr period in AR-11 is $ 2,844,000, and the forecast in 2003 plan was $3,961,000
Note 3: The Local citizens committee's self-evaluation was completed for the 2008 plan with 7 participants avg of 8.

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-7: Summary of Planned and Actual Harvest Area

Area (ha) - Annualized										
	PLANNED HARVEST			ACTUAL HARVEST						
	Past Plans			Past Plans			Current Plan 2003- 2018			
									Projections	
Forest Unit	1991	1996	1998	1991	1996	1998	Planned Harvest	Actual Harvest	Medium-Term 2023	Long-Term 2103
Pj1	441	500	262	514	381	226	218	87	848	725
Pj2	430	353	744	436	255	598	170	117	195	196
Sb1	996	1482	1062	809	815	719	687	515	260	388
Sb2	131	125	104	33	64	60	290	94	87	131
All Pr	0	0	0	-	-		0	0	21	61
All Bf	47	162	76	24	61	62	0	0		
Hwd	33	14	84	57	8	38	63	35	172	178
Total	2078	2636	2332	1873	1584	1703	1428	848	1583	1679

Source: Trend Analysis table 4 (2005)
2003 FMP-18

Pj1=PJD +CMX
PJ2 = CoSha

MANAGEMENT UNIT NAME: Red Lake Forest - 840

PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-8: Summary of Planned and Actual Harvest Volume

	Volume ('000 m^3) - Annualized									
	PLANNED HARVEST VOLUME			**ACTUAL HARVEST VOLUME**						
	Past Plans			**Past Plans**			**Current Plan 2003 -2008**			
									Projections	
Species	**1991**	**1996**	**1998**	**1991**	**1996**	**1998**	**Planned Harvest**	**Actual Harvest**	**Medium-Term 2023**	**Long-Term 2103**
Jack Pine	95	78	58	111	58	47	42	33	126	129
Spruce	162	114	99	104	128	101	116	88	53	85
Balsam Fir	0	5	4	0	0	4	1	0	1	1
Other Conifer	0	0	1	0	0	0	3	1	5	13
Poplar	0	12	11	3	1	3	11	6	26	27
White Birch	0	0	2	0	0	0	2	0	4	2
Total	257	209	175	218	187	155	175	129	215	258

Source: Trend Analysis table 3

2007/08 AR-5

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-9: Summary of Planned and Actual Renewal, Tending and Protection Operations

	Area (ha) - Annualized							
	PLANNED			ACTUAL			PLANNED	ACTUAL
	Past Plans			Past Plans			Current Plan	Current Plan
Operation	1991	1996	1998	1991	1996	1998	2003	2003
Renewal								
Natural Regeneration								
Clearcut Silvicultural System (even-aged)	405	287	374	340	0	112	324	21
Shelterwood Silvicultural System (even-aged)								
Selection Silvicultural System - Selection Harvest (uneven-aged)								
Artificial Regeneration								
Planting	710	479	966	444	498	923	855	924
Seeding	439	645	866	728	157	891	281	97
Scarification	128	347	12	58	105	0	6	0
Total Renewal	1682	1757	2218	1569	759	1926	1467	1042
Site Preparation (mechanical, chemical, prescribed burn)								
Mechanical	1071	1174	1764	1067	744	1406	1112	629
Chemical	71	0		15	0			
Prescribed Burn	74	40	29	95	16	45		
Total Site Preparation	1216	1214	1794	1177	759	1451	1112	629
Tending								
Cleaning	871	263	752	166	28	211	187	125
Spacing, Pre-Commercial Thinning, Improvement Cutting								
Clearcut and Shelterwood Silvicultural Systems (even-aged)	100	100	197	90	4	152	150	182
Selection Silvicultural System (uneven-aged)								
Total Tending	971	363	949	256	32	364	337	306
Protection (Insect Pest Control)								

Annualized AR-7
Trend Analysis table 6
FMP-21

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-10: Summary of Harvest and Regeneration Trends

		Term						
Forest Unit		**1991 to 1996**	**1996 to 1998**	**1998 to 2003**	**2003 to 2008**	**<year> to <year>**	**<year> to <year>**	**<year> to <year>**
Pj1	**Harvest/Salvage (ha)**		761.1	961.3	391			
	Surveyed (ha)				3318.8			
	Regenerated (ha)				3318.8			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated				100%			
Pj2	**Harvest/Salvage (ha)**		510.6	2454.1	536.5			
	Surveyed (ha)				429.4			
	Regenerated (ha)				429.4			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated				100%			
Sb1	**Harvest/Salvage (ha)**		1752.3	3576.7	2726.1			
	Surveyed (ha)				2746.2			
	Regenerated (ha)				2746.2			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated				100%			
Sb2	**Harvest/Salvage (ha)**		127.9	237.6	518.1			
	Surveyed (ha)				218.2			
	Regenerated (ha)				218.2			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated				100%			
All Pr	**Harvest/Salvage (ha)**							
	Surveyed (ha)							
	Regenerated (ha)							
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated							
All Bf	**Harvest/Salvage (ha)**							
	Surveyed (ha)							
	Regenerated (ha)							
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated							
Hwd	**Harvest/Salvage (ha)**		16.4	153.2	35.8			
	Surveyed (ha)				129.6			
	Regenerated (ha)				129.6			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)							
	Percent FU Successfully Regenerated				100%			
Total	**Harvest/Salvage (ha)**		3168.3	7382.9	4207.5			
	Surveyed (ha)			15218	8984.1			
	Regenerated (ha)			10544	8984.1			
	Unavailable for Regeneration (ha)							
	Un-surveyed (ha)			5138				
	Percent Successfully Regenerated			69%	100%			

Source **For 2003-2008**
2007/08 AR-16 Harvest
2007/08 AR-14 Renewal
2002/03 AR-7

Comments Not all AR tables had the same format so figures were not available, Forest Units changed between plans
1991-96 and 1996-98 AR results are not available

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-11: Summary of Forest Condition for the Available Managed Crown Productive Forest

Forest Unit	Age/Condition Class	Area (ha)							
		Past Plans				Current Plan 2003			
								Projections	
		1991	1996	1998		Plan Start 2003	Plan End 2008	Medium-Term 2023	Long-Term 2103
Pj1	Depleted								
	Below Regen Standard		15,175	0		1,196			
	0-20		22,900	19,312		26,843	16,990	13560	23691
	21-40		1,888	438		19,360	32,932	25242	15525
	41-60		3,483	684		6,681	7,302	17562	13132
	61-80		3,631	980		6,391	7,488	5484	5359
	81-100		902	349		3,227	3,536	3010	2739
	101-120		557	447		1,434	1,587	1956	389
	121-140		751	1,152		1,033	1,085	821	235
	141-160		186	169		99	555	492	107
	161-180								
	181-200								
	201+								
	Forest Unit Subtotal		49,473	23,531		66,264	71,475	68,127	61,177
Pj2	Depleted								
	Below Regen Standard		10,381	0		1,453			
	0-20		24,268	29,958		8,340	4,421	3850	4601
	21-40		1,959	1,153		8,299	12,771	7873	4646
	41-60		7,130	7,785		1,010	2,437	7507	7300
	61-80		4,168	5,591		1,072	936	785	2654
	81-100		1,687	2,076		986	1,091	853	1484
	101-120		832	1,184		827	326	669	127
	121-140		1,781	2,798		1,053	1,106	175	0
	141-160		282	416		0	58	309	86
	161-180								
	181-200								
	201+								
			52,488	50,961		23,040	23,144	22,021	20,898
Sb1	Depleted								
	Below Regen Standard		9,922	0		5,872			
	0-20		6,659	7,842		12,718	14,614	12386	10224
	21-40		3,291	2,759		1,672	2,654	12142	10177
	41-60		6,132	6,238		5,281	5,542	1521	7047
	61-80		9,735	9,320		7,243	5,935	4785	7833
	81-100		5,282	5,237		7,087	7,249	6342	7773
	101-120		2,575	2,790		3,599	2,870	889	1336
	121-140		5,677	5,867		3,309	3,314	462	2
	141-160		4,432	4,580		622	1,002	1395	237
	161-180								
	181-200								
	201+								
	Forest Unit Subtotal		53,705	44,633		47,403	43,181	39,922	44,629

Sb2	Depleted								
	Below Regen Standard		2,771	0		3,124			
	0-20		993	446		1,533	4,676	6330	1441
	21-40		305	943		114	137	2164	2243
	41-60		305	474		976	661	107	1816
	61-80		674	577		848	725	913	3331
	81-100		441	243		1,084	1,026	807	5182
	101-120		367	399		2,249	1,534	1024	1863
	121-140		2,123	2,056		4,191	3,249	1152	208
	141-160		3,584	2,231		3,691	4,918	3002	561
	161-180								
	181-200								
	201+								
Forest Unit Subtotal			11,563	7,369		17,810	16,926	15,499	16,645
All Pr	Depleted								
	Below Regen Standard			0		0			
	0-20			711		260		217	1326
	21-40			0		27		235	1144
	41-60			0		0		24	368
	61-80			0		0			48
	81-100			0		0			4
	101-120			0		0			
	121-140			0		0			
	141-160			0		0			
	161-180								
	181-200								
	201+								
Forest Unit Subtotal			0	711		287	0	476	2890
All Bf	Depleted		341	0					
	Below Regen Standard		0	372					
	0-20		912	983					
	21-40		7,120	7,042					
	41-60		1,072	800					
	61-80		30	12					
	81-100		0	0					
	101-120			0					
	121-140			0					
	141-160								
	161-180								
	181-200								
	201+								
Forest Unit Subtotal			9,475	9,209		0	0	0	0
Hwd	Depleted								
	Below Regen Standard		1,962	0		557			
	0-20		1,071	2,657		1067	2,140	4459	4842
	21-40		196	123		5805	6,820	1128	4846
	41-60		3,020	2,713		4195	5,027	4570	2144
	61-80		860	908		2090	4,150	3169	2046
	81-100		781	763		590	1,425	947	421
	101-120		682	662		163	637	75	0
	121-140		116	130		170	292	89	0
	141-160		14	14		0	122	16	0
	161-180								
	181-200								
	201+								
Forest Unit Subtotal			8,702	7,970		14,637	20,613	14,453	14,299
Forest Unit Subtotal									
Total			185,406	144,384		169,441	175,339	160,498	160,538

1991 was not available

RPFO Table 5

2008 FMP-4

The comparable strategic planning sub-totals for this table considering the reclassification of LOWNAT area for SFMM modelling are:

2003 SFMM Long out put report page 32 - 34 Protection Forest - 4,203.6 ha.
Unavailable - 10,607.9 ha.
Available - 165,171.3 ha. (matches FMP-1a reconciliation of SFMM landbase).

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-12: Summary of Habitat for Species at Risk and Selected Wildlife Species

	Area of Habitat (ha)							
	Past Plans			**Current Plan <year>**				
				Plan Start	**Projections**			**Plan End**
Wildlife Species	**1991**	**1996**	**1998**	**2003**	**Short-Term 2013**	**Medium-Term 2023**	**Long-Term 2103**	**2008**
American Kestrel			39,800	894	1,048	1,567	1,126	
Spruce Grouse			81,900	29,121	34,771	49,850	40,501	
Great Grey Owl			21,400	40,935	39,933	34,096	41,855	37,022
Pileated Woodpecker			8,700	3,633	3,521	3,498	2,974	1,414
Boreal Chickadee			56,900	38,549	35,846	30,948	35,963	
Golden-crowned Kinglet			56,900	21,104	19,841	16,259	19,356	
Swainson's Thrush			109,800	21,265	19,899	18,150	17,112	
American Redstart			109,800	19,163	17,734	15,570	14,995	
Connecticut Warbler			68,400	14,852	14,987	14,521	10,510	
White-throated Sparrow			113,400	95,172	88,887	73,713	77,480	
Snowshoe Hare			157,400	2,720	3,166	4,224	3,403	
Northern Flying Squirrel				38,421	37,760	32,841	38,444	
Boreal Red-backed Vole				29,011	27,316	23,007	26,447	
Marten			105,200	42,042	41,130	35,201	43,523	37,022
Woodland Caribou			88,400	56,567	60,198	74,828	69,280	111,919
Woodland Caribou (Winter)			52,200	8,289	7,539	7,291	6,911	25,445
White-tailed Deer (foraging)				8,157	8,204	9,208	8,890	
White-tailed Deer (winter)				7,738	9,292	8,746	5,517	
Moose - foraging			100,300	59,580	55,380	41,655	47,594	55,871
Moose - winter			105,200	64,439	75,798	93,390	87,369	76,767

2003 FMP Appendix 9G Basic results for wildlife habitat
2008 FMP-8 or RPFO-16
1998 FMP -5

MANAGEMENT UNIT NAME: Red Lake Forest - 840

PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-13: Summary of Assessment of Regeneration and Silvicultural Success

		Area Assessed				
		Area Successfully Regenerated			Area Not Successfully Regenerated	Total Area Assessed
Forest Unit	Silvicultural Ground Rule	Projected Forest Unit	Other Forest Unit	Total		
Harvest						
ConMx	ccMPHO	25.0	68.8	93.8		93.8
	ccMPOO	164.8	106.8	271.6		271.6
	ccMSHO	8.7	19.3	28.0		28.0
	ccMSOO	0.0	35.7	35.7		35.7
	ccONOO	0.0	1.7	1.7		1.7
	ccOPHO	0.0	20.7	20.7		20.7
	ccOPOO	66.9	4.5	71.4		71.4
	ccOSOO	0.0	49.7	49.7		49.7
Forest Unit Subtotal		265.4	307.2	572.6		572.6
CoSha	ccMPOO	102.1	3.5	105.6		105.6
	ccMSHO	38.9	0.0	38.9		38.9
	ccMSOO	57.7	46.3	104.0		104.0
	ccONOO	33.8	0.0	33.8		33.8
	ccOPOO	53.3	0.0	53.3		53.3
	ccOSOO	84.0	9.8	93.8		93.8
Forest Unit Subtotal		369.8	59.6	429.4		429.4

PjDee	ccMNOO	83.8	14.1	97.9		97.9
	ccMPHO	46.2	112.7	158.9		158.9
	ccMPOO	714.2	213.9	928.1		928.1
		35.2	15.5	50.7		50.7
	ccMSHO	83.1	19.1	102.2		102.2
	ccMSOO	642.9	263.0	905.9		905.9
	ccONOO	13.9	103.2	117.1		117.1
	ccOPOO	69.7	33.8	103.5		103.5
		0.0	56.2	56.2		56.2
		58.7	0.0	58.7		58.7
	ccOSOO	90.4	76.6	167.0		167.0
Forest Unit Subtotal		1,838.1	908.1	2,746.2		2,746.2
PoAll	ccMNOO	0.0	30.6	30.6		30.6
	ccMPHO	6.6	0.0	6.6		6.6
		27.7	6.8	34.5		34.5
	ccONOO	0.0	18.5	18.5		18.5
	ccOPOO	0.0	11.6	11.6		11.6
		27.8	0.0	27.8		27.8
Forest Unit Subtotal		62.1	67.5	129.6		129.6
SbDee	ccMNOO	36.3	82.5	118.8		118.8
	ccMPHO	150.7	210.2	360.9		360.9
	ccMPOO	1,070.9	1,333.3	2,404.2		2,404.2
	ccMSHO	7.8	0.1	7.9		7.9
	ccMSOO	609.5	215.8	825.3		825.3
	ccONOO	63.4	171.9	235.3		235.3
	ccOPHO	0.0	21.7	21.7		21.7
	ccOPOO	352.6	371.5	724.1		724.1
	ccOSOO	60.7	129.2	189.9		189.9
		2,351.9	2,536.2	4,888.1		4,888.1

SbLow	ccMPOO	92.4	92.4	92.4		92.4
	ccONOO	59.7	59.7	59.7		59.7
	ccOPOO	66.1	66.1	66.1		66.1
	Forest Unit Subtotal	218.2	218.2	218.2	0.0	218.2
	Harvest Subtotal	5,105.5	4,096.8	8,984.1		8,984.1
Natural Disturbance						
	Forest Unit Subtotal					
	Disturbance Subtotal					
Total		4,195.7	4,083.4	8,279.1		8,279.1

MANAGEMENT UNIT NAME: Red Lake Forest - 840
PLAN PERIOD: April 1, 2003 TO March 31, 2008

AR-14: Assessment of Objective Achievement

Management Objective	Indicator	Plan Start Level	Desirable Level (BNV)		Timing of Assessment				Target	Assessment
Quantitative Objectives			Minimum	Max						
1. Forest Diversity - Age Class Structure and Forest Composition										
Productive Land Base: (by forest unit and age class grouping)(ha at start of each 20-year period)										
ConMx		2003				2008 FMP				Within the bounds of natural variation
B & S	ha	55	3	65						FMP7 in the 2008 FMP has adjusted
1 - 50 years	ha	8,069	3,789	9,682	1 - 60 years	11,086			high	age classes to match onset of Old Growth
51-100 years	ha	7,677	2,639	9,212	61 - 100 years	4,853			met	
over 100 years	ha	2,047	1,638	4,635	over 100 years	2,106			met	
Total	ha	17,848	8,069	23,594	Sub-Total	18,045			met	PrMan FU has been eliminated
CoSha										other FU definitions have changed slightly
B & S	ha	1,453	66	1,743						overall met or exceeded BNV ranges.
1 - 50 years	ha	21,078	13,694	26,406	1 - 60 years	22,069			met	
51-100 years	ha	3,454	2,459	10,505	61 - 100 years	2,813			met	
over 100 years	ha	2,304	1,403	4,512	over 100 years	1,985			met	
Total	ha	28,289	17,622	43,166	Sub-Total	26,867			met	
HwdMx										
B & S	ha	59	3	70						
1 - 50 years	ha	3,968	2,464	4,761	1 - 60 years	7,473			high	
51-100 years	ha	4,912	1,758	6,332	61 - 100 years	4,546			met	
over 100 years	ha	251	201	3,624	over 100 years	917			met	
Total	ha	9,190	4,426	14,787	Sub-Total	12,936			met	
PjDee										
B & S	ha	1,143	52	1,371						
1 - 50 years	ha	46,231	28,764	56,204	1 - 60 years	49,501			met	
51-100 years	ha	9,308	7,447	27,627	61 - 100 years	8,576			met	
over 100 years	ha	1,343	1,075	14,458	over 100 years	1,885			met	
Total	ha	58,025	37,338	99,660	Sub-Total	59,962			met	
PoAll										
B & S	ha	498	23	598						
1 - 50 years	ha	5,859	4,486	9,666	1 - 60 years	6,864			met	
51-100 years	ha	3,649	2,206	6,037	61 - 100 years	2,865			met	
over 100 years	ha	334	242	2,721	over 100 years	351			met	
Total	ha	10,340	6,957	19,022	Sub-Total	10,080			met	
PrMan										
B & S	ha	0	0	0						
1 - 50 years	ha	293	93	351	1 - 60 years					
51-100 years	ha	0	0	212	61 - 100 years					
over 100 years	ha	0	0	128	over 100 years					
Total	ha	293	93	691	Sub-Total	0				
SbDee										

B & S	ha	5,872	265	7,046						
1 - 50 years	ha	18,806	15,045	29,113	1 - 60 years	19,186			met	
51-100 years	ha	18,578	5,573	22,293	61 - 100 years	14,689			met	
over 100 years	ha	8,753	7,003	17,820	over 100 years	8,474			met	
Total	ha	52,009	27,886	76,272	Sub-Total	42,349			met	
SbLow										
B & S	ha	3,124	141	3,748						
1 - 50 years	ha	2,666	2,133	10,687	1 - 60 years	3,270			met	
51-100 years	ha	3,178	727	8,167	61 - 100 years	2,519			met	
over 100 years	ha	13,690	6,135	16,428	over 100 years	13,309			met	
Total	ha	22,658	9,136	39,030	Sub-Total	19,098			met	
Total	ha	198,651				189,335				
2 . Forest Diversity - Forest Composition - Available for Timber Production (includes B&S)(ha at start of each 20-year period)										
		2003			2008					2008 source FMP-4
ConMx	ha	14,313	7,963	17,241	16,613					
CoSha	ha	21,587	18,432	27,647	23,144					Over
HwdMx	ha	6,231	4,671	8,007	10,973					
PjDee	ha	50,753	41,517	72,241	54,863					Under
PoAll	ha	7,849	6,678	12,607	9,641					PrMan was dropped as a FU.
PrMan	ha	287	230	344						Changes in FU definition had an impact on
SbDee	ha	41,531	33,265	56,883	43,181					the level in each forest unit. Less hardwood
SbLow	ha	14,686	14,248	21,372	16,926					was allowed in the SbDee and PjDee
Total Available Land Base:		157,237	127,004	216,342	175,341					
3. Forest Diversity - Old Forest Structure (All SU combined - target 3%, shading denotes that target not met.)										
		2003	**2008**	**Changes to Old Growth**						**FMP-13a**
ConMx over 120 years of age	%	3.8%	5.8%							Onset of Old Growth differed between plans
CoSha over 120 years of age	%	8.4%	6.6%	over 110 years						In the 2008 FMP all FU had adequate old
HwdMx over 100 years of age	%	1.6%	7.1%							growth.
PjDee over 120 years of age	%	0.5%	3.1%	over 100 years						
PoAll over 100 years of age	%	2.8%	3.5%							
PrMan over 120 years of age	%	0.0%	0.0%							
SbDee over 120 years of age	%	7.1%	12.4%							
SbLow over 120 years of age	%	59.0%	56.3%							

4. Wildlife Habitat for Selected Wildlife Species (preferred ha at start of each 20-year period)

		2003	Minimum	2008	
American Kestrel	ha	894	716		Not all species were modeled in 2008 All accept Pileated Woodpecker exceeded 2003 minimum levels The habitat criteria changed between plans
Spruce Grouse	ha	29.121	23,297		
Great Grey Owl	ha	40.935	32,748	37,022	
Pileated Woodpecker	ha	3.633	2,907	1,414	
Boreal Chickadee	ha	38.549	29,601		
Golden-crowned Kinglet	ha	21.104	16,884		
Swainson's Thrush	ha	21.265	15,572		
American Redstart	ha	19.163	10,538		
Connecticut Warbler	ha	14.852	8,806		
Wh.-throated Sparrow	ha	95.172	65,931		
Snowshoe Hare	ha	2.720	2,177		
North. Flying Squirrel	ha	38.421	30,737		
Boreal Red-backed Vole	ha	29.011	22,210		
Marten	ha	42.042	33,634	37,022	
Woodland Caribou	ha	56.567	45,254	111,919	
Woodland Caribou (winter)	ha	8.289	6,134	25,445	
White-tailed Deer (foraging)	ha	8.157	6,526		
White-tailed Deer (winter)	ha	7.738	6,191		
Moose - foraging	ha	59.580	38,716	55,871	
Moose - winter	ha	64.439	55,551	76,767	
Black Bear (foraging)				33,342	
Black Backed Woodpecker				40,271	
Lynx (denning)				28,830	

5. Predictable, Continuous Wood Supply

		2003	2008	Actual	
Avail. Spruce/Pine/Fir volume	Mm3/yr	156.000	170.000	109.806	2007/08 AR-4
Avail. hardwood volume	Mm3/yr	15.000	31.368	3.805	
Total volume (all species)	Mm3/yr	171.000	201.368	113.611	

Available Harvest Area (AHA)/year

	Units	2003	2008	2003 Actual	
ConMx	ha	36.2	146.1	20.0	2008 FMP-9 2003 FMP-15 AR 2007/08 AR-1
CoSha	ha	169.5	162.0	107.2	
HwdMx	ha	11.3	84.0	5.0	
PjDec	ha	180.3	190.5	66.6	
PoAll	ha	51.7	156.1	29.5	
PrMan	ha	0.0	0.0	0.0	
SbDec	ha	689.3	747.7	515.2	
SbLow	ha	288.8	264.4	93.9	
Total Available Land Base:		1,427	1,751	837	

Silviculture

		2003 Target	2003-2008 Actual	
Total Silviculture Expenditure	M$/yr	760.9	568.8	2007/08 AR-11 & AR-8
Average Silviculture Cost	$/m3	4.4	5.0	
Total Growing stock	MMm3	11.8	7.1	

6. Soil Function	Appropriate forest operations prescriptions (FOP's) will be prepared for all areas allocated for harvest during preparation of the Annual Work Schedules. Area of concern planning will ensure protection of all sensitive ecosite 12 sites through implementation of best management practices. This objective will be equally achieved in all management alternatives.	Pre work documents are used to prescribe conditions in sensetive areas and they are identified on an attached map
7. Fisheries and Water Quality	Application of the area of concern planning process during plan development and implementation will ensure the protection of known values equally for all alternatives. On-going communications during plan preparation will allow for the identification and protection of any additional values (sensitive sites, fisheries). Forest management activities, including AOC planning, forest renewal, rehabilitation, monitoring and assessment, should maintain water yield and net primary productivity, within the estimated bounds of natural variation inherent to the Red Lake Forest.	Procedure followed
8. Personal and Commercial Use	Allocation to the full available harvest area will enhance the achievement of the personal and commercial use harvest objective. All known demands will be accommodated where operationally feasible during the allocation process. Fibre requests will be honoured equally for all management alternatives.	All requests have been accommodated
9. Working with Aboriginal Peoples	On-going communications with First Nations communities in the proximity of the Red Lake Forest will be conducted. AOC planning during plan development & implementation will include protection of identified Native values. Allocation to the full AHA will provide opportunities for Aboriginal forest management operations. Higher initial AHA areas provide greater opportunities in the short term Term 1 (SMA, DEMAND), as compared to TPPbal and TPPinf.	The 2008 FMP development included extensive aboriginal consultation. The Two feathers mill will be accommodated when they are in need of fibre
10. Tourism and Other Commercial Uses	Other resources users will have the opportunity for input during the planning process. All identified non-timber commercial values will be considered during the area of concern planning process, which will allow for the protection of the known values. All forest management activities will be planned and implemented utilizing the area of conem planning process. All existing agreements will honoured, which should avoid any reduction in the quality of tourism experiences from the current status. Input during the allocation processs, and consideration during the area of concern planning process will protect the quality of resource opportunities in the future. Equal implementation for all alternatives.	AOCs are in place to accommodate RBTO and other resource users.
11. Road Accessed Recreation	Allocation to the full available harvest area will optimize the maintained forest access road system, thereby enhancing road accessed recreation or other usage opportunities. Management alternatives that involve greater annual available harvest areas is generally required a more extensive road system for plan implementation. Recreational opportunities are projected to be slightly more enhanced in the short-term with TPPinf and TPPbal, ahead of SMA and DEMAND, however this relative ranking reverses by Term 3 when SMA and DEMAND project greater annual AHA areas.	MNR has continued to improve the quality of the ownership data and values locations
12. Ownership & Other Land Use Values	Application of the area of concern planning process during plan development and implementation will ensure the protection of known values equally for all alternatives. On-going communications during plan preparation will allow for the identification and protection of any additional values (ownership changes or inaccuracies, other land values).	All identified values hae been protected and C&H modeling has been used to identify potential areas.
13. Cultural Heritage Values	Application of the area of concern planning process during plan development and implementation will ensure the protection of known values. On-going communications during plan preparation will allow for the identification and protection of any additional values (sensitive sites, cultural heritage). Forest management activities, including AOC planning, forest renewal, rehabilitation, monitoring and assessment, should maintain the integrity of identified values on the Red Lake Forest.	

Socio-Economic Evaluation	Socio-economic benefit is quantified by the MNR Socio-Economic Impact Model (SEIM). Generally the socio-economic impact positively increases in direct proportion to the quantity of timber harvested. The selected management alternative (SMA) ranks first in this model for Term 1 short-term socio-economic value, (only marginally higher than DEMAND, and slightly higher than third-place TPPinf and TPPbal (tie) due to the lower Term 1 harvest volumes for the TPP alternatives). A summary of Term 1 results from the Socio-economic Impact Model (SEIM) is included in Table FMP-12e.	Wood harvest during the 2003-08 term was not maximized because of economic conditions in the forestry sector.